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HEALTH *AND* DISEASE

DR. C. G. R. MOUTOUX

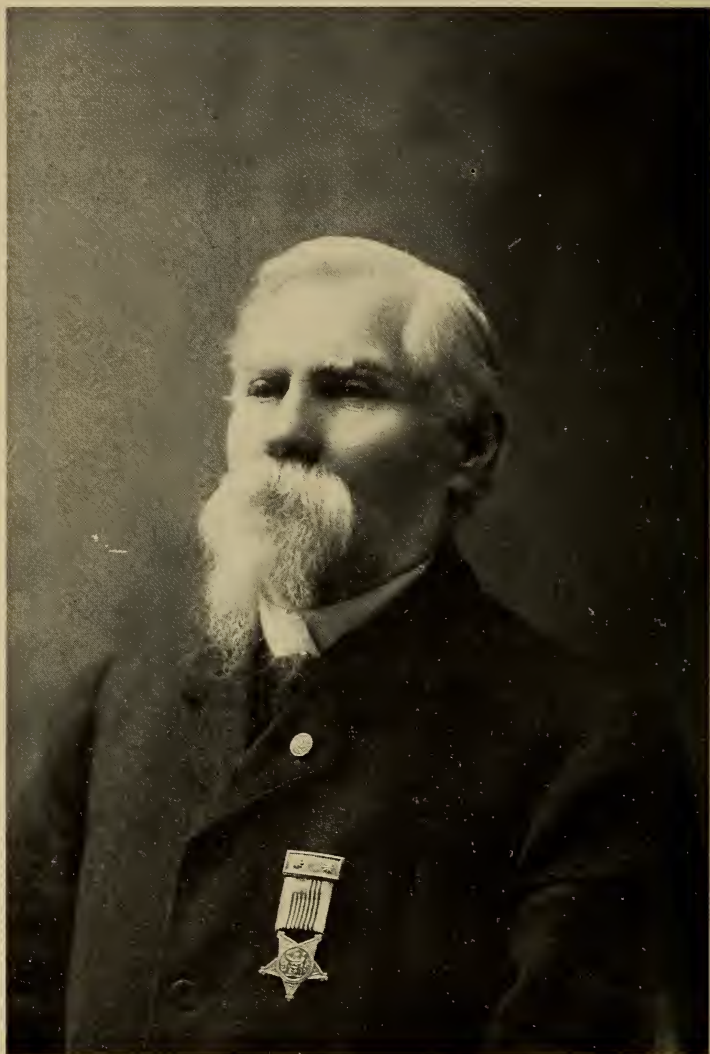


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L. L. R. Montague. M. D.

HEALTH AND DISEASE.

A POPULAR EXPOSITION ON

The Essentials of Health
The Causes of Disease
The Care of the Sick and Convalescent
with Addenda.

AND ALSO

AN APPENDIX

Containing Essays on

The Gradual Physical Degeneration of the Human Race
The Causes of the Increasing Occurrence of Childlessness
And The Principles of Sexual Physiology

By DR. C. G. R. MOUTOUX

Surgeon to Lyon Post No. 8, G. A. R.

Oakland, California

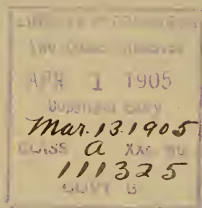
PUBLISHED BY THE AUTHOR

OAKLAND, CALIFORNIA

1905

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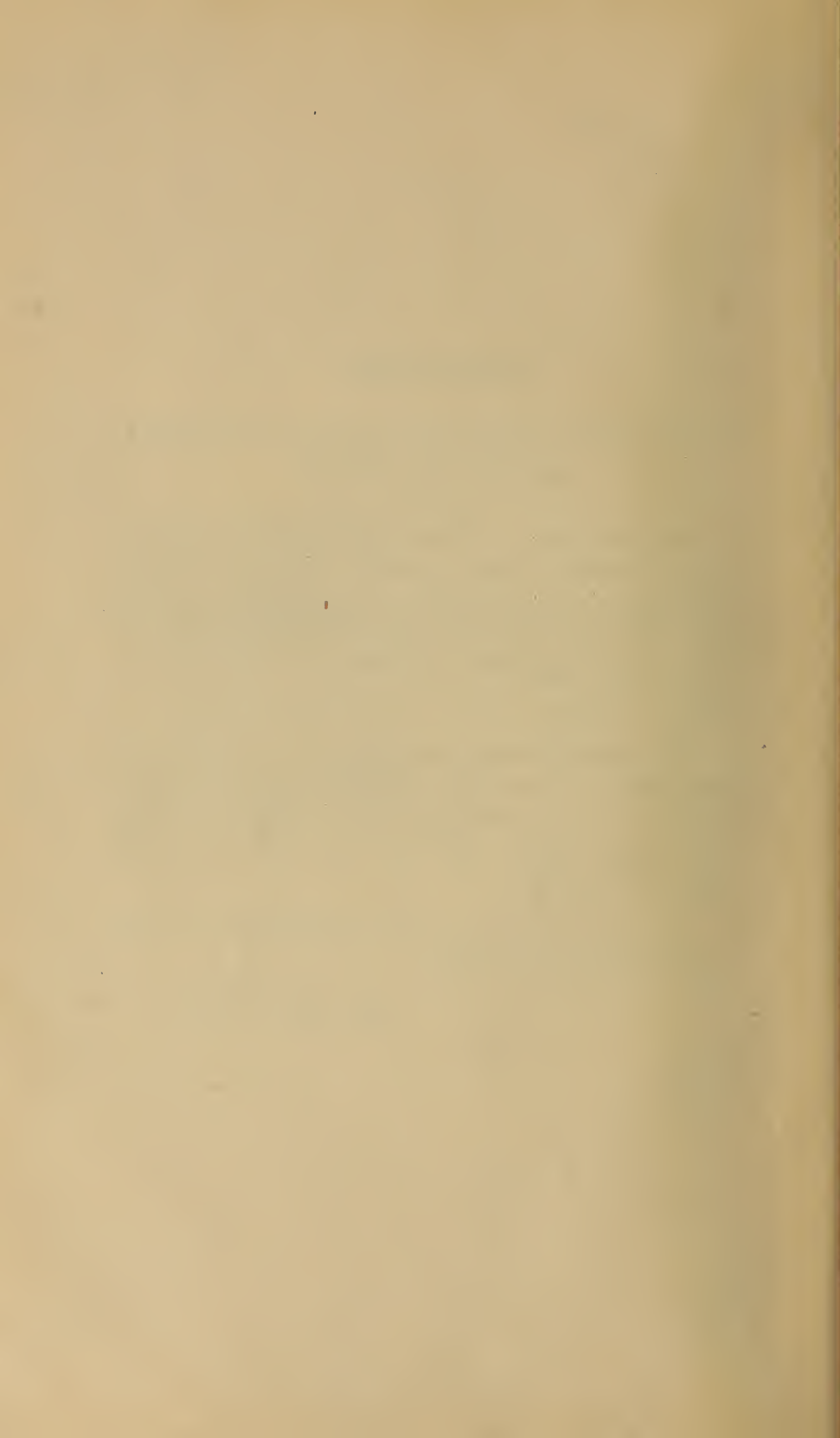
TO ALL EARNEST SEARCHERS FOR SCIENTIFIC REALITY
AND RATIONAL RESULTS

Paracelsus says: "That which is looked upon by one generation as the probable climax of human knowledge is often considered an absurdity in the next; and that which is regarded as superstition in one century may form the basis of science in the next."

The unconditional acceptance of teachings or propositions of so-called authorities has been subservient to the encouragement of blind following rather than reliance upon personal experience and rational reasoning.

Medical science based on practical proofs will stand the test at all times.

DR. MOUTOUX



PREFACE

In offering this work to the public, I desire to state that it contains my experiences, observations, studies, and conclusions regarding health, disease, and other relative matters, gained in a professional career as practising physician for more than thirty years, and that I wish to present the results in as plain a manner as may be consistent with a satisfactory understanding; not in a spirit of assumed infallibility, but as appealing to the common sense and rational reasoning of an indulgent reader desiring to grasp the truths the work may contain.

It has been at all times my endeavor to enlighten and guide thinking persons, as much as reasonably could be expected, to comprehend the true principles of hygiene, the essentials of health, and measures for the prevention of disease, as well as the proper care of the sick and convalescents; also to teach them, when professional aid may be imperatively demanded, that we should comply with our duty in serving mankind to the best of personal knowledge and ability.

As to my standpoint regarding the principles of hygiene and the causes and prevention of disease, I may differ from many colleagues, yet I entertain the consolation that time, the tester of all things, will finally prove the correctness of my conclusions.

The diverse methods of treating disease have been impartially presented, as it is my thorough conviction that all extremes of any special system or method are of very questionable value, and that the real merits of any method should be freely recognized and made use of in appropriate cases; in other words, we should be prompted to practise at all times a rational conservatism, and to secure the fullest benefits of any means in maintaining or restoring health, and to be guarded against ridiculing principles and methods of treatment without having given such an impartial, practical test. Success may often be attained by combining the doctrines of

several systems or methods in appropriate cases, as may prove to be most rational.

In discussing the more common forms of disease, and recommending certain simple medication, I do so with the assurance that the treatments given have been very successful in my hands, and, as the prescriptions do not contain any poisonous substances, no harm can accrue from their proper use in the hands of intelligent persons, but great benefits may be confidently expected.

The attached "Addenda" may serve the reader to appreciate the real services of the doctor, and to beware of bold, unscrupulous, and unworthy individuals.

With reference to the "Appendix," containing an essay on "The Physical Degeneration of the Human Race," it may seem to superficial readers rather exaggerated, yet time will verify the correctness of my opinion.

The essay on "Sexual Physiology," and allied matters, seemed to me a fitting subject with which to conclude the work; and, while it is not intended to gratify vulgar curiosity, specially interested persons will find the subjects presented with reasonable plainness to serve its real purpose.

I can not refrain from expressing the feeling that it would be very gratifying to me if members of the medical profession should also find in this work matter for deep reflection and consideration, and deem it worthy of a careful perusal.

And it is hoped that my labor may be received in the same kind spirit in which it is presented, and that fair criticism and favorable reception may be my reward.

DR. C. G. R. MOUTOUX.

Oakland, Cal., Dec. 1, 1904.

NOTE.—The author, a German-American, never received any schooling in the English language, hence it is hoped that due allowance may be made as to probable imperfections of style or expression.

C. G. R. M.

CONTENTS

PART FIRST

The Essentials of Health

INTRODUCTION	15
CHAPTER I. REARING OF CHILDREN.....	17
CHAPTER II. SCHOOL HYGIENE	22
CHAPTER III. PHYSICAL CULTURE	25
CHAPTER IV. INFLUENCE OF EDUCATION ON HEALTH AND PHYSICAL DEVELOP- MENT	28
CHAPTER V. MATRIMONY	32
CHAPTER VI. DIET AND DIGESTION—Milk, Bread, Breakfast Mush, Vinegar, Spices, Salt, Water, Coffee, Tea.....	34
CHAPTER VII. CLOTHING	46
CHAPTER VIII. OCCUPATION AND RECREATION.....	50
CHAPTER IX. CLIMATE AND ENVIRONMENT.....	55
CHAPTER X. AUXILIARIES OF HYGIENE—Injec- tions, Bathing, Massage, Vaccina- tion	58

PART SECOND

The Causes of Disease

INTRODUCTION	72
CHAPTER I. DIVERSION FROM RULES OF HYGIENE..	73
CHAPTER II. IMAGINATION AND SENSIBILITY.....	75
CHAPTER III. INFLUENCES OF LOCALITY	83
CHAPTER IV. INFLUENCE OF CIVILIZATION.....	85

CHAPTER V.	ALCOHOLIC STIMULANTS—Whisky, Beer, Narcotics, etc.	87
CHAPTER VI.	TOBACCO	89
CHAPTER VII.	EXCESSES	90
CHAPTER VIII.	SUPPOSED CAUSES—Mosquitoes, Hook-worms, Micro-organisms	91

PART THIRD

Care of the Sick and Convalescents

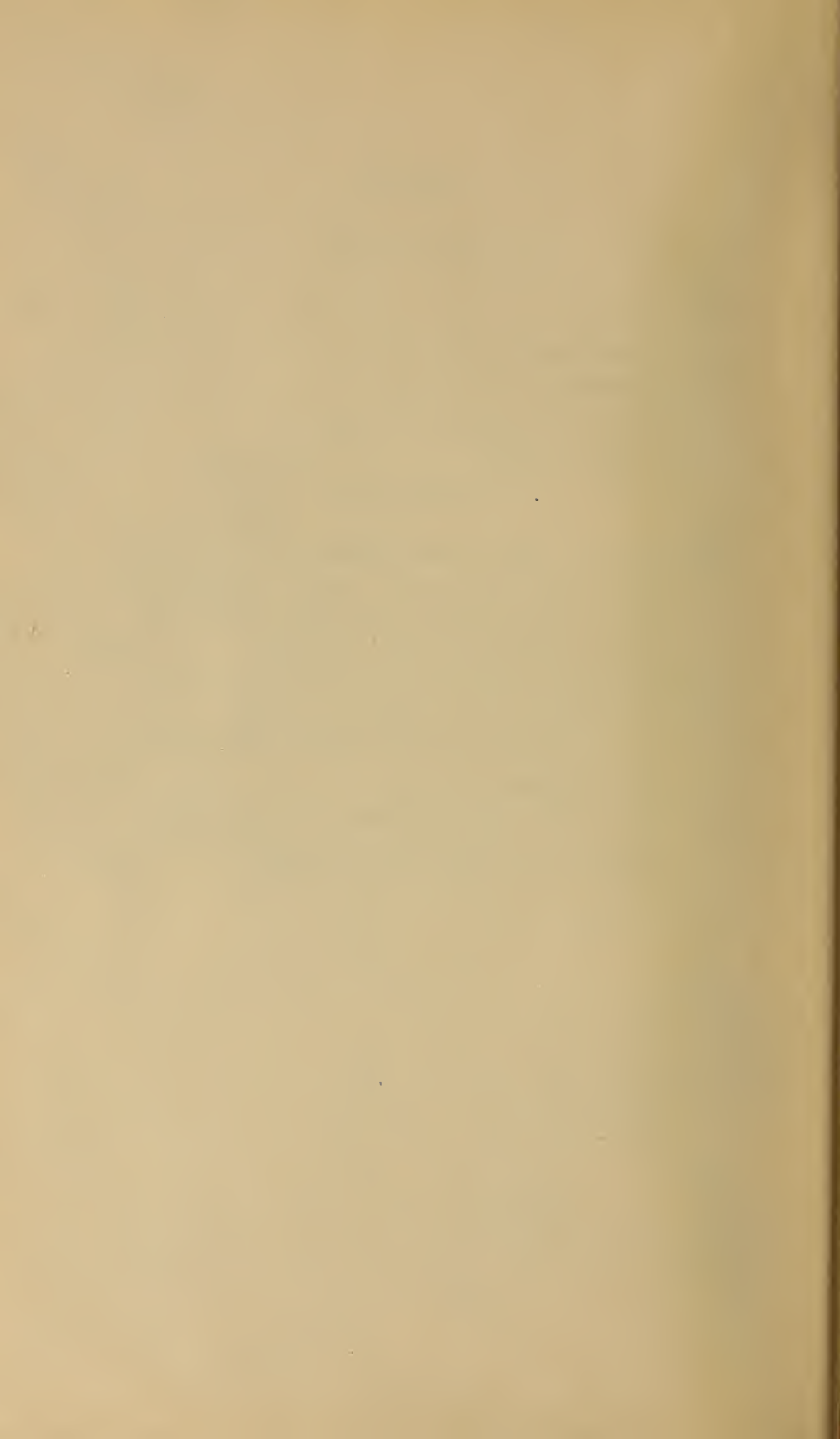
INTRODUCTION	102
CHAPTER I.	NATURE'S CURE106
CHAPTER II.	ASSISTANCE TO NATURE—Allopathy, Eclecticism, Homeopathy, Hy- dropathy, Medication, Imagina- tion, Superstition, Suggestion, Hypnotism111
CHAPTER III.	COMMON FORMS OF DISEASES—Loss of Appetite, Constipation, Diar- rhœa, Flux (dysentery), Cough, Colic, Cholera Morbus, Headache, Indigestion (dyspepsia), Appen- dicitis, Rheumatism, Catarrh, Poison-vine Eruption, Burns and Scalds, Tapeworm125
CHAPTER IV.	SPECIFIC DISEASES—General Re- marks, Malaria, Measles, Diph- theria, Whooping-cough, Croup, Smallpox, Typhoid Fever, Con- sumption and Tuberculosis, Grippe148
CHAPTER V.	PROPER CARE OF THE SICK.....172
CHAPTER VI.	RULES FOR CONVALESCENTS176
CHAPTER VII.	OLD AGE177

ADDENDA

THE PHYSICIAN	179
THE SURGEON	183
THE OBSTETRICIAN	187
THE SPECIALIST	190
THE MEDICAL QUACK AND PRETENDER	191
THE MEDICINE VENDER	193

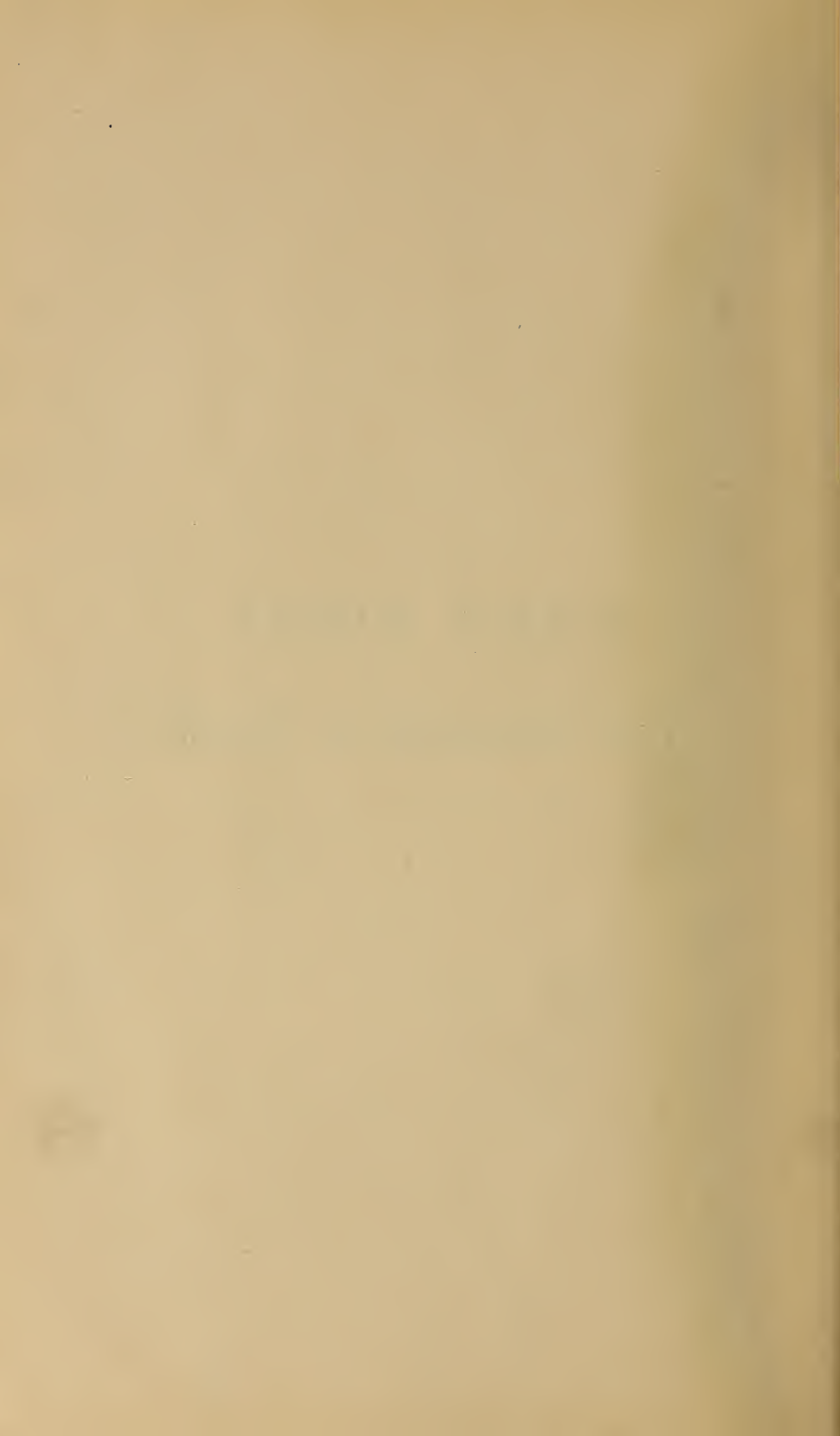
APPENDIX

AN ESSAY ON THE PHYSICAL DEGENERATION OF THE HUMAN RACE—Introduction, General Observation, Prominent Causes, Modern Diet and Cooking, In- terference with Nature's Laws, Conclusion.....	195
AN ESSAY ON THE INCREASING OCCURRENCE OF CHILD- LESSNESS—Introduction, Influence of Modern Cul- ture, Increasing Ambition for Celibacy, Indiscretions of Modern Matrimony	207
AN ESSAY ON PRINCIPLES OF SEXUAL PHYSIOLOGY—Gen- eral Remarks, Peculiarities of Sexes, Special Points of Interest, Co-incident Factors, Sterility	214



PART FIRST

The Essentials of Health



Introduction

The maintenance of health will at all times constitute the most important aim, as well as duty, of the individual; not only for his own sake, but, indirectly, for the welfare of all. Perfect health is dependent upon the normal functions of the organism, as far as physiological activity is concerned. But the human organism is a very complex apparatus, and many special organs have to exercise certain distinct functions and to be in full co-operative harmony with the whole. In other words, each organ of the body must take its full share of normal activity, in order to keep the whole organism in perfect running order and preserve a healthy condition.

But to secure such a harmonious action in the organism, the individual person must submit to the laws of nature and obey its imperative demands. This compliance is distinctly shown by the instinct of people or animals, as the case may be, living wild or in a primitive state; while higher civilization encroaches upon the inherent free-will power of man to satisfy certain desires against such laws. Consequently, disorders in the organism, as well as actual diseases, have resulted.

There are many propositions presented, regardless of adverse factors, in solving the problem of how to secure and maintain perfect health. Yet opinions are very conflicting; so I venture to enter the arena of friendly controversy to assist in clearing

the field for such a high purpose, or at least that the result of discussion may arouse public attention, and thus avoid errors which, perhaps through ignorance, are often committed. Thus I would inspire individuals to avail themselves of every opportunity to judge what reforms are necessary to insure the possession of good health.

We will now discuss the most important factors in reaching such a desirable result.

CHAPTER I

REARING OF CHILDREN

It must be presupposed that parents have enjoyed all the advantages of good health in order to realize the expectation of being blessed with healthy children, and that it now depends on the proper conduct of their further physical and mental development until puberty is reached.

Beginning with the very birth of the infant, grave errors are often committed on the part of parents or nurses, in an unnecessary anxiety to provide for its well-being. We observe an abundance of clothing on hand, to keep the baby warm, as well as an overheated apartment, for the same purpose. If we reason correctly, we can not fail to be convinced that a superabundance of clothing and rooms too warm will predispose an infant to many ailments. Such results come through forcing unusual sweating, and thus drawing too much moisture from the body, which should find its way into other channels, especially the kidneys and bowels, to secure their normal activity; in other words, that the kidneys be enabled to eliminate sufficient water from the blood to keep in perfect solution the solids that should be passed along with the urine, and that the bowels preserve a proper condition and free discharge.

But besides such unduly moist state of the skin, the child is liable, on the least change of temperature or sudden exposure, to take cold, causing affec-

tions of the air passages and lungs (bronchitis or pneumonia), as well as bowel complaints, such as diarrhœa, or even cholera infantum (summer complaint). Therefore, let the infant be clad so as to secure reasonable protection from cold, according to climate and season of the year, and thus, with due prudence, to gradually accustom it to outdoor influences.

As first nourishment, the most natural and becoming is, no doubt, mother's milk; but in case there should be a positive deficiency, the best substitute is cow's milk, if possible from a fresh cow. This milk should be diluted with one-fourth to one-third of pure water, to which may be added about one half-teaspoonful of milk-sugar to one quart of fluid, in order to approach as nearly as possible the constituents of mother's milk.

A great error is committed in putting the infant to the breast whenever it cries, or is restless; and it should be borne in mind that oftener than every two hours is not advisable, and later on perhaps every three hours, so that one feeding may be properly digested before another is given.

To do away with the cradle or rocker is one of the happiest of reforms; and when a child falls into sleep without such a rocking motion the brain has not been unusually irritated; hence a sound and greatly protracted sleep is secured.

Advancing to childhood, probably best after the sixth month, should be given more substantial food, so as to become gradually accustomed to the more common diet of the household; yet, as a rule, meat,

spices, sour and salty foods, must be avoided as much as possible. It is in this period that, for convenience, infants' foods, such as Mellin's Food, or Horlick's Malted Milk, are to be recommended in connection with mother's or cow's milk. After the child is nine months old, it would perhaps be better to wean it from the mother and feed it as above indicated; and occasionally light, substantial diet from the table may be given with perfect safety, especially foods prepared from flour, potatoes, eggs, rice, or sago; also vegetables and other garden products, such as fruits, berries and beans, may be added.

Special pains must be taken to avoid overfeeding, as well as to abstain as much as possible from nursing during the night. Once or twice nursing during the night is all-sufficient for an infant.

In case of occasional constipation, bran water or fennel tea, with equal parts of sorghum molasses, may safely be given in teaspoonful doses every two or three hours, merely to produce a laxative effect; but real purging must be avoided, except in sickness where it seems positively necessary.

If diarrhœa occurs, it should not be checked for a day or two, because it is often a sign that nature wants to rid itself of irritating substances accumulated in the bowels; yet a flannel binder around the abdomen, to secure equal temperature, is a very commendable provision. In addition, if desired, anise or weak peppermint tea, with a little blackberry cordial, or porridge with some cinnamon tea administered at certain intervals, in doses according to circumstances and age of child, are often useful.

In case diarrhœa persists, with stools too frequent

and watery, a very good prescription is the following, calculated for a child one year old:—

Subnitrate of bismuth, 1 to 2 drams.

Tincture of catechu and tincture of cinnamon,
each 1 dram.

Syrup of ginger, 2 drachms.

Peppermint water, $\frac{1}{2}$ ounce.

Simple syrup, 1 ounce.

One teaspoonful every two or three hours, as needed. Older children in proportion to age.

In the event the diarrhœa continues in spite of medication, or becomes complicated with straining at stool, the discharge of the bowels being very offensive or mixed with blood and mucus, a dose or two of castor oil may be given to clean out the bowels, and then the foregoing prescription administered anew. However, should serious symptoms develop, it would be better to consult a physician. Diseases of older children will be discussed under Part Third, in connection with affections of adults.

As to medication, let us always remember that a child is a product of nature, and we should avoid, as much as possible, so-called doctoring, but let the all-wise nature take care of an infant as its best protector and provider. Many hundreds of children die annually by imprudent interference with nature in attempts to rectify artificially slight and temporary disturbances and ailments.

Another point must be mentioned, that, even if medicines are really necessary, children often receive doses too large in proportion to their age.

Let us also always bear in mind that, whenever the weather permits, we must grant the child every

opportunity to become gradually accustomed to outdoor life, so that pure, fresh air may enter its lungs, as well as to enable the child to enjoy the pleasures of outside surroundings and recreation. Sunshine is also very invigorating, but provisions must be made to exclude direct rays of the sun from the face, especially the eyes, as much as possible.

There exists in this age a certain craze for bathing; and while an infant should be kept reasonably clean, yet to secure such condition by indiscriminate bathing is, at best, not necessary, if not injurious; because the delicate skin of the infant may be deprived of its normal natural texture, especially if too much soap is used, instead of making gentle friction. The lower part of its body, for obvious reasons, should be kept scrupulously clean, to prevent the discharges from chafing the infant; however, in spite of care, should such chafing occur, the best dusting powder is lycopodium. It is far better than any so-called baby powders, starch, or talcum.

As the child advances in age, say between one and a half and five years, outdoor playing, with due discrimination, must be encouraged. The establishment of kindergartens is an excellent method of taking care of children, because, through oversight of its conduct, a child gradually becomes accustomed to observing order, and is gradually prepared for entering school. This will lighten the labors of a teacher very materially, and also promote the attention of the child during instruction hours, and good behavior outside of the schoolroom.

CHAPTER II

SCHOOL HYGIENE

The necessity of proper ventilation in school-rooms is self-evident; yet, very often, not enough attention is paid to this indispensable condition. This must be attributed to the erroneous supposition that children may contract cold; but such fear is more imaginary than real. If the precaution is taken to avoid strong and direct drafts upon the scholars, a very simple and inexpensive method of ventilation consists in lowering, at all times, the upper window-sashes, more or less, according to the season of the year and the temperature of the room.

It is also a great error to allow overheating of schoolrooms, for the purpose of providing comfort for the children. We must take into special consideration that a numerous body of children in a single room will themselves supply a considerable degree of warmth to the apartment; and if, in addition, artificial heat is excessively provided, the air will be rendered impure, hence unwholesome, forcing the lungs to reinhale air which has already been given off as impure, together with the excessive heat of an overheated room, preventing thus the proper cooling of the blood.

The protection of children from chilliness is all that should be attempted by means of artificial heat. The temperature in a schoolroom should be between 60 and 70 degrees.

Direct rays of sunlight into the eyes of children

while reading or writing must be rigidly avoided, because it is the most fruitful source of defective vision, from the fact that the optic nerve is thereby overstimulated and irritated. The pupil will receive more light than can be refracted, and defects of vision, and even eye diseases, must result. The same principle holds good with reference to artificial light; therefore, while writing, reading, or executing particular work, such as drawing, needlework, and the like, at night, the light should always be placed at or near the back of children. This rule applies with equal force to both sexes. If such precautions were taken and strictly adhered to, it would seldom be necessary to procure eyeglasses for school children. The present fad of wearing glasses to compensate for or overcome defects of sight is in many, if not in most, instances prompted either by a deceptive imagination or for the doubtful purpose of providing a lucrative income to so-called opticians or optometrists, often mere pretenders. In this way, ignorant parents are many times taken unawares and simply fleeced. I have often urged the discontinuance of the practise of wearing glasses, especially on the part of children, and have had the great satisfaction of noting that, by adhering to instructions with reference to regulating the light, very pleasing and satisfactory results have been achieved. The vision has been preserved and improved without artificial contrivances, and the children have been relieved from the annoyance of wearing glasses, as well as from probable injury.

A very commendable provision in a schoolroom is to have the window-panes covered with a very

thin coat of white lead and bleached linseed oil, which will exclude the intensive rays of light. This may be supplemented by the use of window-shades as a protection against the too strong or too direct rays of the sun.

Immediately surrounding schoolhouse yards are also a very necessary acquisition, to provide fresh air and outdoor recreation and exercise for children in hours of recess. But it must be remembered that any kind of amusement should be superintended by the teacher, that rudeness and overexertion may be strictly avoided; this is essential in order to impart real benefit to the children in the way of physical development, strength, and elasticity of movement.

CHAPTER III

PHYSICAL CULTURE

In the previous remarks on "School Hygiene," the necessity of exercises of various kinds in the schoolyards has been especially emphasized. For the purpose of cultivating gymnastics systematically, special instructors are provided for public schools of larger cities, for high schools, colleges, and universities.

From time immemorial various races of people have practised physical activity, such as hunting, rivalry in sports, games, or warfare; and civilized nations have endeavored to transform such practises into a more refined system. And to-day physical culture is added to the curriculums of many schools as a branch of instruction, in order to favor physical development and to secure elasticity of movement, as well as to develop bodily strength to best advantage.

We find that in rural districts, where children are more out of doors, enjoying free country life, and, as a rule, are encouraged to assist parents in light work about the house or in the garden and field, they have all necessary exercise, and do not need gymnastic training. Such children are physically stronger and healthier than those in cities.

While physical culture, under a professional instructor, may prove beneficial as a substitute, compensating in some degree for the many advantages country life has to offer, it is a fact that any artifi-

cial substitute can not replace nature's provisions. Yet it must be admitted that, if the instructor conducts such exercises with due moderation and proper discrimination, the results achieved may prove beneficial to scholars, and a drilling exhibition may also be pleasing to spectators; therefore, no reasonable objection to such practises could be raised; but to make these exercises compulsory is going too far, and is a great injustice to scholars, as well as to parents. And it should be the rule, without exception, to secure the consent of parents for their children to engage in such exercises; for we must consider that children who have to do work at home have all the exercise necessary for physical development.

Attention is also called to the fact that we have abundant evidence that in institutions of higher education such exercises do degenerate in athletic sports, and that brutal games, such as boxing, football, and even prize-fights, as occasions of rivalry for so-called championships, are cultivated and encouraged! In these exercises it often occurs that bodily injuries are inflicted, and, in place of cultivating refinement and gentleness of heart, brutality and rowdyism are often the result. And, instead of prohibiting such ambitions, some teachers, very much to be regretted, seem delighted and interested in such competitive sports; yea, even indulge in such practises themselves.

Exercises in physical culture on the part of girls and maidens may be seriously questioned, for indiscriminate demands would not exert a beneficial influence on physical development, and the fear of disturbing their anatomical relations is not without

foundation. This assumption can be verified by gynæcologists (woman specialists) in comparing city and country girls or maidens with reference to displacements and other diseases peculiar to their generative apparatus. If, for the sake of exercise, as well as pleasure, dancing, riding, playing, etc., are customary and indulged in, all necessary physical practises are provided.

It must further be considered that women, in their proper sphere of life, have abundant opportunity, as a rule, for changes of exercise in their daily vocation; and by availing themselves of such opportunities and usefulness, such exercises will not only benefit each individual, but will at the same time solve a very important economic problem. Of course, females who are indisposed to such useful employments, and prefer inactivity of body, may very profitably be encouraged in such practises, as a substitute for other physical work. Otherwise, such individuals would have to suffer the many consequences of physical inactivity.

CHAPTER IV

INFLUENCE OF EDUCATION ON HEALTH AND PHYSICAL DEVELOPMENT

Advanced civilization demands from boys as well as girls a reasonable school education; at least, in the most universal and useful branches, such as reading, writing, grammar, composition, orthography, arithmetic, geography, history, etc., as taught in the various grades of our common public schools. Yet, for the sake of non-interference with the physical development of children, a very conservative spirit and experienced discrimination should guide in teaching. Instructors should at all times be mindful of the fact that talents and special gifts are not equally distributed amongst children. Those with superior talents for learning and self-reasoning, possessed of a certain degree of ambition, will make rapid progress with comparatively light exertion, hence no special encouragement on the part of the teachers is necessary, as it would often prove injurious, if not disastrous, in maiming future mental achievements, as well as interfering with normal physical development; while less gifted children may be gently called upon to prosecute their lessons with more application, and, everything else being equal, avoiding rigidity or force, except in cases of real laziness and carelessness. There is also another class of children who are merely averse to

learning, not possessing certain talents at all, but, at the same time are inclined to be industrious in manual work or have a certain ambition for mechanical art. Parents and teachers should give all encouragement and opportunity to such scholars, who are mostly boys, to follow their natural impulses and inclination, and not try to divert their minds in attempts to force attention to artificial learning.

I desire to impress upon teachers the important fact that an unusual effort and exertion in mental study will very greatly influence and materially curtail physical development, especially in weak, delicate subjects, which, besides damaging a really healthy condition, may cause nervous prostration and probably premature bodily decay.

A thoughtful teacher will, therefore, at all times, aim to conduct his school with a view to realizing the best results of education without interfering with the laws of health and the requirements of the physical welfare of his scholars. This will, after all, prove to be a greater blessing to the individual than any amount of forced artificial education. The teacher should also bear in mind that extraordinary efforts, regardless of talents, to secure a high degree of proficiency in learning, must result in a weakened state of health, nervous prostration, and early senility. If such a timely warning be not heeded, the sad consequences in the future will prove the rationality of the theory here advanced.

Later on, the developing individual becomes further removed from childhood and youth, the contrast becoming more and more pronounced, and this fact deserves our most careful consideration ; because,

after maturity, children are to replace their parents on the stage of action in the world. Therefore, it should be our unceasing effort to prepare both sexes for entering their proper and respective station in life in the enjoyment of full physical strength and vigor; the man as a healthy, strong, and useful citizen, husband, and father, and the maiden a fully developed and loving wife, conductor of affairs of the household, and a devoted mother.

But there exists a tendency to obtend and frustrate such an ideal station in life, and the ambition is predominating to exert all means and opportunities to secure a higher education, mostly for the purpose of finding positions in easy employments at high remuneration. And this applies to both sexes. While such ambitions may be commendable, yet, in making an impartial analysis of facts, we must arrive at the lamentable conclusion that thoughtless ambition for higher education will finally prove, as before indicated, disastrous, as far as health and full bodily perfection are concerned, leaving a ripe old age out of the question.

Some young men, without possessing any special talents, merely loaf through the schools as a matter of fashion, while others exert too much mental force in prosecuting their studies; so the former become idlers, laggards, or worse, and the latter have so crippled their health that the enjoyment of physical vigor is out of the question. And such individuals are rendered unable to perform manual labor—an employment far more conducive to well-being than any other, besides giving one the gratification of occupying a most desirable station in society.

Such gratification is denied to idlers, athletes, and sports.

As to maidens, the above remarks have special significance, so far as physical development is concerned; because, in the period of maidenhood, all nerve exertion should be as sparingly as possible expended, in order that the maiden may enter into a robust womanhood, so that the change from girl to maiden should not take place prematurely, that sexual activity be kept dormant till the proper time, and that her future station in life may be entered in full physical vigor.

It is hoped that the foregoing may not be construed as militating against the higher education of females; it is only designed to urge that study be so prosecuted as not to hinder full physical development, and that protracted and difficult studies should not be prosecuted before at least the seventeenth year is reached, and a physically vigorous womanhood is assured.

CHAPTER V

MATRIMONY

Matrimonial union is no doubt the most important event in life; for on it depends a happy home, contentment of mind, and perpetuation of the human race. Careful statistics show that married life is far more favorable to the reaching of a ripe old age than bachelorhood, if a couple conduct the marriage relation in a proper way, according to the laws of nature. Therefore, we must not lose sight of the fact that disobedience of such laws by either parent will influence health, and may be the cause of premature senility, or even death.

Although dealing with a somewhat delicate subject, it seems to be a duty not to pass by, but to point out, certain errors of misguided and misconstrued perceptions. On the part of the husband, there must be mentioned excesses, or frustrating completion of act for obvious reasons. Such procedure is far more damaging to health than is generally supposed; because the nervous system has not returned to as calm a state as when nature is relieved into proper channels, which perversion may lead, in time, to nervous prostration, as well as to total impotence, causing impairment of general health and premature senility. On the part of the wife, as the rather passive factor of sexual activity, errors on her part are not so apt to be accompanied with such consequences, yet the evasion of the laws of nature to prevent conception, by various methods employed for that pur-

pose, must result in disturbances and actually diseased conditions of the sexual anatomy, while the destruction of the products of conception by medicinal, mechanical, or instrumental aid will produce serious damage to those organs, which very often results in immediate death. At best, such a woman becomes a lifelong invalid, a burden to herself as well as to her husband, devoid of any prospect of future happiness.

A well-wishing and conscientious physician will at all times endeavor to caution his patrons or the public, and thus strive to preserve life, and not to destroy it. On him must be placed the only reliance for thorough reform.

CHAPTER VI

DIET AND DIGESTION

GENERAL REMARKS

It has been said by some illusionists that a modern kitchen is nearly analogous to a laboratory, and that in these days it is necessary to study cooking as a science and an art in order to prepare food agreeable to the palate, as well as pleasing to sight. The most important organ, the stomach, receives usually secondary consideration, or never comes in question, especially in our country; therefore, we have so much dyspepsia, and allied disturbances of that organ, and, in consequence, faulty or insufficient nutrition.

As this part of our problem is so very important, it deserves special and explicit discussion. Let us not lose sight of the cardinal principle that normal and sufficient nutrition is not dependent upon the quantity or quality of food, but, primarily, on that part of it which is properly digested, assimilated, and transformed into healthy blood; nevertheless, it should also contain considerable matter, which leaves a good deal of indigestible residue, through which, while passing over the mucous covering of the bowels, serves by its mild friction and irritation to stimulate that tract to increased action (*peristalsis*), and helps to eliminate such substances as have not been desirable nor needed in the organism, and at the same time performs a scouring service, cleansing the inner coat of the bowels, as it were, keeping the

mouths of absorbent vessels clear to perform their proper functions.

In this connection may also be mentioned the constantly increasing *decay* of the *teeth*; and while, in olden times, dentists were unknown, to-day they are found in numbers, even in the smallest towns. If we look for a cause, we observe that in olden times people had a far coarser diet, of very plain constituents and preparation, while in these days cooking has changed remarkably, so that blandness and richness is preferred. This is the cause of the decay of the teeth, for rough food will keep the enamel of the teeth clean by abundant friction during the process of chewing, and the simple constituents of plain food are not apt to injure or destroy the enamel. But now just the opposite course prevails, and were it not for the dentists to at once fill cavities and thereby preserve the teeth, people would soon be toothless. Such a condition would finally result in a revolution in cooking, in order to provide such food as would need no chewing; and then the decaying process would still more increase, until no dentist would be able to rectify the evil except by providing full sets of artificial teeth, a very poor substitute for good, natural teeth.

Foods for the purpose of preserving teeth are the various kinds of vegetables, fruits, bran, grits, or rolled whole wheat, graham bread, etc., which are also admirable aids to good digestion.

It is a great error to suppose that so-called pre-digested foods, or medicines taken with a view to aid digestion, such as the various preparations of pepsin, pancreatin, etc., merely recommended on

chemical theories, are able to correct digestive defects. As thereby the actual cause of indigestion is not removed, the result is always very problematical and temporary, hence no permanent cure is achieved.

Another fact worthy of consideration is that a great variety of foods, especially of diverse composition, at a certain meal, will have a very unfavorable influence on digestion. And as such imprudence is so customary in this country, especially among the more opulent class of people, dyspepsia and stomach troubles become prevalent disorders.

As a general rule, great discretion must be exercised to avoid overloading the stomach, as well as too many so-called courses at a meal, including iced dishes, highly seasoned foods (either through spices, flavors, or sugar), ice-water or other such drinks, all of which for the moment seem very agreeable, but are neutralizing to the normal warmth of the stomach, and thus interfere with the digestive function. The same is true when the stomach is overheated by too hot fluids, or by rich meals; it is then impossible for that organ to act properly on its contents, and to secure normal digestion and the necessary assimilation of food.

To assist artificially the process of digestion and the action of the bowels, new methods have been introduced, such as rubbing, kneading, application of mustard plasters, the use of hot water bags, etc.; but all of such aids will not neutralize any imprudence of diet, to say nothing of their annoying features.

Of great importance, besides the quality and

quantity of food, is the duty of taking sufficient time for meals, so that food may be thoroughly chewed. This is an imperative requirement, because prolonged movements of the jaws stimulate the salivary glands to pour out an abundant amount of saliva, so very essential to proper digestion. Prolonged mastication also reduces the food to more minute particles, which enables the stomach to act properly upon its contents—the greatest factor of proper digestion.

The bad habit of discussing or transacting business or other matters during meal-time should not be encouraged, because it diverts the action of the nervous system from exerting and developing sufficient activity towards the digestive organs and tends to embarrass their function. *Frequency* of meals is another phase of the subject, and, although it is impossible to be governed by arbitrary rules, yet certain considerations will indicate the right course to pursue. Occupation and certain habits may modify real requirements along this line, yet some principles will guide us aright. People who perform protracted and hard manual labor require more frequent meals and a more substantial and nourishing diet, in order to fully compensate for wear and tear of physical exertion; therefore, such persons may safely eat as often as every two and a half to three hours daily, or at least three good meals every day; because, owing to such activity of the body, the digestive organs are spurred to increased action, as a wise provision of nature to sustain bodily strength by more frequent meals.

Persons engaged in light physical work combined with mental exertion need coarser and rather stimu-

lating food at longer intervals, and three times a day are quite sufficient; while people who scarcely do any work, either physical or mental, require but two meals a day, as a rule.

The cardinal rule should guide us at all times, that the stomach be allowed ample time to accomplish its functionary work before replenishing. And the real feeling of hunger or thirst, as the case may be, should be the only proof that previous digestive action is completed, and a fresh supply of food called for.

About *late meals* opinions are somewhat divided, but we may reasonably infer that the stomach is rather inactive during sleep; hence the harm of late meals, other considerations being equal, is apparent. It could not be otherwise than that, during sleep, the contents of the stomach undergo a certain decomposition, which is rarely the case when in full activity. Therefore it is certain that late meals form one of the most fruitful sources of digestive disorders. As a general rule, the last daily meal should be taken at least two hours before going to sleep.

Great caution must also be exercised in the purchase of foods, because many adulterations are constantly practised, for the sake of pecuniary gain, by unscrupulous producers and manufacturers. And national or state laws will never prove as effective as expected, a fact which the past has proven and the future will further confirm; hence the most reliance must be placed on the competent, careful, and reasoning cook and the purchaser of eatables.

As a safeguard against *adulteration*, which will prove the most effective, is the purchase of such ar-

ticles as come from first and direct sources in their natural state, or such manufactured products as allow an easy and ready analysis of real constituents; so that adulterated products, such as meats, fruits, vegetables, etc., may enter the kitchen in a pure and fresh state.

We may now very profitably investigate briefly the merits of some of the most common and universal articles of food, and their proper preparation and use. Yet it is not intended to furnish a cook-book, but merely to give the principles of food for proper meals.

Milk.—The first nourishment has been, as we all know, mother's milk; and during childhood, as well as adult life, cow's milk, and the many products derived therefrom, are extensively used, and justly so, because they are the most nourishing and easily digestible diets for our table. But they should be furnished in the purest state, free from adulteration, dilution, or preservatives; yet such can only be derived from cows properly fed and cared for, especially such as are allowed the greatest possible freedom in a good pasture, and additionally fed with grass, clover, or hay, as also bran and crushed cereals, but not with refuse or slop of distilleries or other objectionable food.

Milk from such cows is the most natural nourishment, and the charge of transmitting tuberculosis will never be proven by practical test. It is even admitted that the supposed dangerous (?) bacilli are rarely, if ever, found in milk.

The best safeguard against impure milk is the strict examination of milk by public inspectors, and

we may be confident of procuring purer milk at present.

Bread, as one of the most universal articles of diet, is an ideal food, if well baked, and should consist of whole wheat, rye, or barley flour, whichever may be specially prepared; for the reason that such flour contains all the nourishing constituents of the grain in undisturbed proportion, and, besides possessing the most nourishing substances, leaves also considerable residue for elimination, by which a certain stimulus is furnished to favor the action of the bowels, a principal factor in cleansing that canal by gentle friction. It therefore acts as a most desirable laxative and the best safeguard against constipation.

A wrongly conceived national custom is the serving of hot bread, biscuits, pies, cakes, and other pastries—a custom which constitutes another source of indigestion, the reason of which is very apparent, as hot foods, on the one hand, are unfavorable to digestion, and, on the other, hot breadstuffs agglutinate in the stomach, preventing its proper action.

Breakfast Mush is one of the best of foods, and can not be too highly recommended, if prepared from well-cleaned wheat, oats, or barley; and when merely boiled with water and milk, to which may be added a small quantity of salt, makes a very desirable diet; especially for children, it is considered almost unsurpassable. But the bad habit of serving it hot, or of adding a certain quantity of sugar, may be pleasant for the tongue, but, to a great extent, neutralizes the efficiency of such nutritious products.

For the sake of profit (because the real cost of raw material is scarcely one-fourth of the selling

price), an increasing rivalry has been inspired, and the market is flooded with such foods under fanciful and absurd names, which are brought to public attention by extensive and bombastic advertisements. Common sense ought to teach us that we should give decided preference to food that has a name at least analogous to the contents of the package, so that the purchaser may know exactly what he is buying, and not be deceived by a mere name.

Meats are, especially in this country, far too much indulged in. The manner of preparing is also a matter of some importance. Meat, too much roasted, loses much of its nourishing qualities, while stewed, or fried rare, as also meat soups of various kinds, are the most to be preferred. As a rule, once a day of meat diet may be quite sufficient. It should also be remembered that, while meat of very young animals is considered very acceptable, owing to its tenderness, it should not be used extensively. As to kinds of meat, I think the most healthful is mutton; next, come fowls, then beef, and, lastly, hogs' meat, which should be very sparingly used, if at all.

Meats from cold-blooded animals, such as fish, oysters, lobsters, etc., are especially to be recommended in preference to other meats, and may be more frequently eaten.

The efforts nowadays to encourage a vegetable diet seem to me a move in the right direction, and it may be considered a bad habit to partake of flesh food several times every day, while a vegetable and limited meat diet is far more healthful.

Fruits, when fresh and ripe, may be eaten at almost any time, as they are refreshing, healthful, and

nourishing, especially apples, raw or cooked. The practise of eating a ripe apple before retiring is an excellent aid to digestion. Of the many varieties of fruit, each person must decide which kind will best agree with him, and be governed accordingly.

It is the custom to pick fruits for shipping before becoming ripe, to ripen while in transit or at the place of their destination; but such practise must be condemned, as fruits thus picked are devoid of their natural flavor and constituents. Fruits, to be the most healthful and pleasant, should be brought direct from the orchard to the consumer in a ripe state.

Vegetables are very wholesome, and should be far more extensively used than is customary nowadays; for, besides being nourishing and to some extent invigorating, they provide, owing to their fibrous texture, a sufficient residue to stimulate digestive activity and to favor proper evacuation of the bowels.

Vinegar, if made from fruits, preferably apples, is occasionally refreshing, and, under certain circumstances, healthful and beneficial, if used in moderate quantities; but we must remember that vinegar is an acid, and that it is liable to produce overacidity of the stomach, which is very detrimental to digestion. It may also neutralize the normal alkalinity of the bile, so necessary for emulsifying fatty substance to insure their solubility for assimilation. We must not forget that the stomach requires an acid and the bowels an alkaline stimulant, for proper digestion.

Spices, such as peppers, mustard, etc., should be

far more sparingly used than is customary, to avoid undue irritation of the stomach, which may so obtund the sensibility of its inner coat as to change its normal texture, thereby destroying, to a great extent, the absorbing capacity of that organ, and greatly interfering with the digestion. The causes of ulceration and cancer of the stomach are readily traceable to the irritating influence of the imprudent use of spices, as well as to hot and ice-cold dishes, or water, as the case may be, in succession.

Salt, when used in moderate quantities, is not harmful, but its indiscriminate use is positively detrimental to the whole organism, and it may be a very good practise to occasionally abstain from its use altogether. The very bad habit of using unusual quantities of salt must in time prove very detrimental to the whole system, for it changes the acid of the stomach into an alkaline state, and that organ is thereby unable to prepare the food for thorough assimilation. An illustration of the injurious effects of too much salt is shown on alkali lands, where scarcely anything can grow, until irrigation, by sufficient solution, drains off the surplus salt.

Water, although not strictly or directly nourishing, fills a very important part in our daily diet. But it should be at all times of the purest kind, free from pollution and injurious minerals, and as fresh from the source of supply as possible. To test water as to its purity, a very simple method is to take a piece of soap and wash the hands in the water, using plenty of soap. If it makes the water merely turbid, it is free from minerals and other undesirable substances; but if the water shows on its surface flocules

of soap, it is not pure, hence not desirable for drinking purposes.

But water, if indiscriminately drunk, may become harmful, and for this reason some general hints must be given. Every morning, after rising, a large glass of fresh water is salutary to cleanse the stomach, dilute the blood, and enable the kidneys to separate in thorough solution the solid and injurious materials from the blood to be emptied into the bladder and discharged. The practise of drinking hot water is nothing but a fad, and the absurdity of such notion is apparent when we consider that anything too hot or too cold is injurious to the stomach for obvious reasons.

At meal-time, water, or, in fact, any kind of drink, should be avoided as much as possible, for the reason that it causes an undesirable degree of dilution of the gastric juice (stomach secretion) so indispensable for proper digestion. Therefore, just before, as well as shortly after, meals, water must be avoided, while a free use between meal-times, as well as at night, will be found always salutary, because such practise insures full activity of the kidneys and elimination of deleterious substances from the blood. Moreover, water is one of the very best *blood purifiers*, as it keeps certain solids in the blood in thorough solution. But the drinking of water in large quantities at any one time should not be indulged, except in excessive thirst; for it dilutes the contents of the stomach and bowels to an undesirable degree, and stimulates the kidneys to undue activity.

Coffee is considered by many people an almost absolute necessity in diet; but the idea is very erro-

neous, for coffee has no nourishing qualities whatever, and, owing to its active principle, caffenin, acts only as a stimulating sedative. When it is used very weak (that is, in a much diluted form), it will exert no marked deleterious effect on the organism, excepting when, in using very large quantities, an excessive amount of caffenin enters the system. In this way either too much or too strong coffee may act as a slow poison.

As there are many very good substitutes for coffee, it would be perhaps preferable to abstain from its use altogether, and use one or other substitute, such as parched cereals, wheat, rye, barley, acorns, chicory roots, beets, carrots, and, as the latest, the so-called "Figprune," which makes, with milk, a nourishing and palatable drink. Any of these are far preferable to coffee, being more wholesome, and, at least, containing no poisonous substance whatever.

Tea is, also, in some countries, a special favorite, and, owing to its peculiar aromatic flavor, is very pleasing to the sense of smell, as well as to the taste. It is exhilarating to the nervous system, temporarily, and is usually followed by a certain relishment. However, tea contains no nourishment, and its continued or excessive use is very questionable; yet an occasional use of tea can not be considered as injurious, and may be safely indulged in by those who enjoy the taste.

CHAPTER VII

CLOTHING

Modesty, civilization, as well as climate, require a certain protection of the body. It is also understood that modern society demands certain fashions in dressing, because of the almost universal idea that in this way the exterior self is presented to best advantage (?). While dressing should primarily serve the purpose of protection against exposure to heat or cold, varying according to climate or seasons of the year, yet we could not reasonably condemn a dress which fulfils the requirements of utility and fashion, and, at the same time, is pleasing to the eye, presenting the exterior person to supposed advantage. But we must at all times be mindful that all clothing should be so devised as not to interfere with the free movements of the body and the functions of the exterior and interior organs. And, in this connection, special reference should be made to the erroneous idea that the bust of females must be made prominent by means of a tight-fitting corset, or the waist drawn together to an injurious degree. In the former, the breasts (*mammæ*) can not develop properly, the nipples are pressed into the glands (breasts), and in time of lactation (nursing) a young mother will have to suffer the consequences, by having either sore nipples, or, owing to defective development of breasts, insufficient secretion of milk, quite to the embarrassment of the mother and dissatisfaction of the child. By tightening the waist,

the necessary expansion of chest and abdomen during breathing (inspiration) is greatly interfered with, and the heart and lungs are thereby encroached upon.

But it is especially the liver that suffers, and when this organ is unduly pressed upon its function is interrupted, which not only causes an insufficient flow of bile to the bowels, but also, by a partial compression of the bile duct, prevents a free flow of that secretion, and thus evaporation takes place, which is one of the most fruitful causes of the formation of *gall-stones*. This fact has not been recognized heretofore, but it is, nevertheless, a rational inference. The stomach also suffers by a constriction around the waist, although, happily, this organ is mostly protected by the chest walls (ribs), yet, if perfect freedom be not given to that organ, so that its normal motion can be properly executed, for the purpose of digesting its contents, the result must be a more or less deleterious effect upon digestion, as also upon the whole organism. And even the bowels take part as sufferers from such faulty constriction, that canal being hindered in the performance of its physiological function to favor absorption of remaining nutriments from the food, as well as to secure the elimination of effete matters (stools).

Another bad habit must be mentioned—that of wearing too warm clothing. And this tendency is constantly increasing, through fear of taking cold, as the imagination has it, as well as to provide for enforced comfort; yet they lose sight of the fact that such habit not only effeminates the individual, but increases the imaginary requirement of a still more abundant supply of clothes. In this way an occa-

sional exposure to draft must consequently induce affections of the air passages and lungs, and even of the skin and abdominal organs. Therefore, considerable discretion must be exercised, and effort made to become more and more accustomed to atmospheric and climatic changes, to increase the power of resistance, and to withstand such natural influences. The cardinal rule should be observed to provide such clothing as may reasonably secure protection against very cold weather, but always to have in mind that it is fully in our power, if the effort is made, to become accustomed to such degrees of cold as will really be surprising.

At this stage of the discussion we may mention the bad habit of using *too light footwear* as an illusion of fashion. As a consequence of compressing the feet, so-called *corns* appear, caused by pressure of the skin covering the resistant bony structure of the toes, resulting in great inconvenience and annoyance to the individual. There are many corn cures on the market, yet simple cerate, applied several nights, followed by soaking the corns in hot water for some time, will effectually remove the difficulty, and the use of commodious footwear afterwards will generally prevent a return.

The custom of wearing *gloves* and *veils* unnecessarily must be questioned; yet if used for the purpose of protection against unusual influences of temperature, they are permissible. But it must be specially emphasized that hands and face should never be denied the natural beneficial influence of exposure to the atmosphere.

In concluding this part of our discussion, we

must not omit to mention the bad habit of wearing *hats* or *caps* for the greater part of a day. Such a custom prevents perspiration of the scalp, and keeps it from partaking of the beneficial atmospheric influences. Such a bad habit is a most fruitful source of *baldness*, which is found almost exclusively amongst males. It very rarely occurs amongst females, for the simple reason that women, as a rule, in their everyday life, do not use any headwear; so the logic of the foregoing conclusion is apparent. That a live plant (and the hair is no exception) needs atmospheric nourishment, as well as that derived from the soil—in this instance, the cuticle, or skin (the scalp)—for proper growth, is an admitted fact; hence we should leave our heads uncovered as much as possible.

CHAPTER VIII

OCCUPATION AND RECREATION

Industry, commerce, and science provide for remunerative employment in greatest variety, and while the rather primitive races employ their time in hunting, fishing, or rude agricultural pursuits, to provide for the necessities of life, as well as indulging in sports, often of rather a brutal character, as a means of recreation and pleasure, or in warfare, such ambitions are quite different from the requirements of the laborer and mechanic, in factories, mines, and other places of industry, or of persons engaged in other pursuits, who are often denied the benefit of pure air and necessary rest, and have to face many disadvantages. Besides suffering the loss of natural opportunities, they meet casualties and accidents of various kinds, which either predispose them to disease or bring upon them ailments not known to our forefathers; or, worse, to suffer often real want, either through lack of employment or insufficient compensation in comparison to the very necessary means for maintenance. As a result, their natural lives are shortened, as they are in so many ways subject to premature death.

While such a state of affairs is very much to be regretted, yet it seems almost impossible to radically change such a condition for earning a livelihood on the part of millions of workers in modern civilization and society. Nevertheless, it is our sacred duty to make the greatest possible efforts toward so-

cial reform, for the betterment of those who occupy such stations in life, so that a more philanthropic and unselfish spirit may prompt owners of factories, mines, or other places of industry, voluntarily to provide for the better care of employees, instead of being forced by legislation, or by the organization of labor societies, that laborers may secure their due share in the production of wealth, as well as enjoy the best possible hygienic benefits. In this way these important classes may share at least equal opportunities in the enjoyment of life, health, and recreation.

While it is deplorable that many workers are forced to accept very unsanitary places for employment, the effort to better such conditions is often neutralized by an increasing ambition on the part of young men and young women to leave the country and farm and join their fellow-workers in cities. They make the change for the supposed betterment of their condition, hoping thereby to secure larger pay and easier work, as well as to have more opportunity for the pleasures and amusements of city life. They lose sight of the fact that farm and country life has many advantages for securing good health, and, through this means, a prolongation of life to a ripe old age, which cities can rarely offer.

On the other hand, we must recognize that workers in employments other than agriculture are indispensable in providing many necessities and commodities of life; also that this class of workmen are the principal purchasers of farm products, which aids in rendering agriculture profitable, and that their station in life ought to be made as comfortable as possible.

Occupation in close quarters, as well as in a posture devoid of bodily exercise, necessarily must predispose the individual to, or directly cause, diverse ailments and diseases; and, as many disadvantages in that respect can not be removed, such persons should pay particular attention to the quantity as well as quality of their food, in order to avoid constipating tendencies, as well as to provide for daily healthful exercise. And all persons who, in their vocations, are denied exercise in the open air, should seek all available opportunities to secure such exercise, even to a moderate degree of fatigue; although persons performing hard manual work need all the rest possible, to enable them to gather strength for renewed exertion.

We also must condemn *child labor*, which, under fourteen years of age, at least, should be strictly prohibited, for the very obvious reason that, by such early employment, the proper physical and mental development of children is almost impossible. Their health is injured to such a degree as to frustrate the prospect of their attaining full physical vigor. And it can not be otherwise than that such weak and emaciated children, on arriving at maturity, when they must occupy the place and assume the same duties as their parents, will, through such physical and mental shortcomings, influence more or less, also, their offspring. And such cause and effect must continue from generation to generation, to final destruction of the race.

But while the premature and unhealthful employment of children exerts such deleterious influences, entire idleness and rich food may, on the

other hand, under certain circumstances, produce equally sad results, though probably in another form. So the rich must suffer for their indiscretions, and the poor be punished undeservedly for the faults of a wrong economic system.

While persons performing manual work need rest of body, mental workers must provide not only for rest of the brain, diverting their thoughts to matters outside of their sphere of everyday thought, but should indulge in physical exercise, even to a point of fatigue, so that the physical organism of the individual may receive its share of stimulation. In this way the necessary rest is secured for renewed exertion. As a mental worker is generally confined to the apartment of his study, he must secure certain hours to be separated from such close quarters, in order to enjoy outdoor influences and fresh air to the fullest possible extent.

Coming back to mechanical laborers, it is imperatively demanded that they enjoy a change of scenery from everyday life, to indulge in reading useful works, to post themselves on questions of national economy, and reason out principles for themselves, so that their brains may become stimulated for deeper thought and a full comprehension of matters of vital importance outside of their sphere of daily usefulness. Such change is just as valuable to them as the enjoyment of physical exercise to brain workers. But all workers, physical as well as mental, require an occasional recreation. It should be a vacation, where, severed from daily labors, nature and its beauties, as well as plain country life, may recuperate the individual in a wonderful degree. But it is

very much to be regretted that often one's means will not allow such beneficial recreation; hence other available sources have to be sought that will compensate to some degree for such unfortunate circumstances. It must be emphasized that the most universally available day is the so-called Sunday; a day for rest, to suspend all weekly employment and enjoy a deviation from usual labors, so that the physical and mental powers may be enforced and refreshed ready for renewed exertions.

It is impossible to give abstract rules as to what should constitute rest, recreation, and amusement; and while, as has been said, manual labor needs rest of the body, and mental labor rest of brain, the former should, as a rule, enjoy all amusements not dependent on physical exertion, and the student, as a matter of course, ought to be able to reason out that which is best adapted to his requirements.

Now, it is a fact that people in rural districts, owing to rather meager education, hence inability to do much mental work, are, as a rule, far more robust and healthy, and better developed physically, than city inhabitants. However, we are not justified in attributing such advantages to mere country life, but we do say that a certain degree of inactivity of the brain favors physical development; and it is very obvious that persons engaged exclusively in mental work could not be expected to be as robust and healthy as those doing moderate physical work in connection with occasional mental exertion.

CHAPTER IX

CLIMATE AND ENVIRONMENT

The influences of climate upon health and longevity, and the advantages of various environments in securing the same, are manifold. For instance, it is a fact that, as a rule, we find people in rather cold climates, as well as those living in moderately high altitudes, enjoy better health and attain a greater age than people residing on lowlands. Especially where swamps and ponds with stagnant water abound, the population suffers much from malaria, dysentery, and typhoid fever, until such lands are properly drained and tilled; in other words, until the cause of such troubles is removed. And this is especially true of such localities situated in tropical climates, where evaporation is almost constantly active. And, besides malaria, the development of yellow fever in many such sections is an occasional result.

While it is impossible to change a climate, yet we must secure to the population as healthy a condition as possible, and at least avail ourselves of such means as are at our command for securing the best health of such community. These means embrace, as has been said, perfect drainage, thorough ventilation, and the best possible drinking water.

In most prairie regions the absence of forests or horticultural garden trees, perchance also bad drinking water and piercing winds, favor diseases of the lungs and air passages; and pneumonia, asthma, and

catarrhal affections may be contracted, if persons unwittingly or unnecessarily expose themselves to such influences.

Very high altitudes favor a certain form of anæmia, by producing impoverishment of the blood, owing to a defective quantity of oxygen in the atmospheric air; yet people may become accustomed to such climatic conditions and be compensated in a manner beyond our present conception.

A very changeable climate is also, under certain circumstances, deleterious to perfect health, for the reason that precautionary measures can not be adopted; yet the individual who, by reason of rational thought, takes advantage of favorable opportunities, will be duly rewarded by a proportionate enjoyment of good health.

It is a fact that extreme tropical climates favor an early maturity, as well as a corresponding earlier senility, also a disposition to lewdness and laziness. But we know that certain nations, from infancy, become rather accustomed to the extremes of climate, while it would require years—if not sooner disastrous to life—for newcomers to acquire immunity from such special influences.

While it is almost impossible for the majority of people to seek such locations as may be most favorable to health, owing to financial or other obstacles, yet, in taking advantage of the most important points herein mentioned, cautious and thinking readers may derive much benefit.

Of course, those in more favorable financial circumstances can avail themselves of special advantages, and can seek and follow the advice of their

family physicians as to the selection of climates and so-called health (?) resorts; yet I would caution all against sudden extremes of temperature or altitude, and advise that a rather gradual change is to be preferred; otherwise, a radical change may prove more disastrous than beneficial.

CHAPTER X

AUXILIARIES OF HYGIENE

GENERAL REMARKS

It is the imperative duty to ourselves, as well as to society, to call into service all rational means destined to prevent disease. As we have, in the foregoing chapter, discussed natural influences as factors in securing and maintaining health, we may now profitably inquire into other measures for acquiring the same end.

Let us at all times be mindful that the all-wise nature endeavors to correct any disturbance in its organism, and manages her affairs in a most wonderful manner. And if individuals would adhere to natural principles of hygiene, the powers of nature will be successful in securing and maintaining a healthy state of the system. But it is very much to be regretted that thoughtless and meddlesome persons believe themselves called upon to teach nature a lesson, and to interfere with nature's efforts in a very doubtful and often harmful manner, through which just the opposite effect is produced; so that, instead of securing health, a weakened or even diseased condition results.

To make this more apparent, it will be very profitable to discuss various antique and also some modern procedures in detail. The most universal are the following:—

Injections.—The most used is an injection for the lower bowel, called enema, for the purpose of

relieving constipation and to unload the rectum. While it can not be denied that, occasionally, such procedure may be indicated, yet a reckless or constant use of the injection for that purpose may be injurious; if a proper diet were adhered to, nature would attend to that function in the natural and more efficient manner, which is far preferable.

Another delusive method is that of Hall, consisting of flushing the lower and middle large bowel (colon) with great quantities of water, under the irrational theory of forcing the colon and rectum to unload themselves of their contents. This method is lauded, and sold on certain confidential conditions at a high price, and also under the condition that it be used only by the purchaser. Common sense will teach us that any unusual dilation of the bowels must relax their muscular structures, and, in time, an atony, or a weakened, relaxed condition takes place, interfering with nature's effort to exert her natural force. If persons would adopt a proper diet, as has been previously advised, injections would rarely, if ever, be called for.

Another use of injections is that practised by some females, on the supposition that it insures the utmost cleanliness. This bad habit is becoming more and more prevalent, while the fact is lost sight of that at each injection the vagina becomes deprived of its mucous covering, which tends to change the delicate mucous membrane. Such injections should only be used by order of the physician. It is a fact that women who never resort to such a course seldom suffer from female troubles.

Bathing, for the purpose of favoring good health,

is becoming a universal custom amongst all classes of people; but its real benefits are greatly exaggerated. While, for the sake of cleanliness, an occasional bath serves a good purpose, yet the extreme of taking a bath every day is a very delusive practise. This reckless use of the bath robs the skin of its natural secretion and velvety structure, especially when soap is too freely used, which absorbs the fatty natural secretion, and deprives the skin of an indispensable constituent.

To prove the real absurdity of indiscriminate bathing, let us inquire into the habits of rural populations, where very old people are found, who never have taken a bath at all, save the occasional washing of the body, a mere ablution to cleanse it when really necessary. That those people are, nevertheless, more healthy, and, as a rule, attain a greater age than city people, must be admitted. The only exceptions may be in cases of filthy surroundings, where causes for certain skin diseases exist. Yet one must be surprised to witness in what filth and unsanitary surroundings people often enjoy a remarkably good state of health and live in perfect contentment; which facts certainly furnish food for deep reflection. 'Of course, cultivated people will not in the least sanction such a course, but will rightly adhere to perfect cleanliness of the body. But I wish to lay special stress on the principle that cleanliness should be secured with as little bathing as possible, in order to preserve the integrity of the skin.

Massage is another method for the purpose of stimulating the muscles to high (?) normal activity, and it is practised even as a therapeutic agent. It

simply consists in manipulating the muscles by kneading, rubbing, pressing, etc.; yet the greatest benefit that is derived from it is in the imagination of the supposed virtues. Otherwise it is void of any rational and positive benefit, excepting in some special diseased conditions.

Vaccination, as a preservative of health and preventive of smallpox, has been practised since Jenner introduced it, in 1776, and has been lauded as a great discovery. Yet he was led only by an imagination that milkmaids who milked cows that had a pustular eruption on their udders similar in appearance to the eruption and vesicular arrangement of the smallpox in man, would not contract that disease; hence they must have been protected by that influence. Jenner, on the basis of such supposition, reasoned that, if virus from the pustules on the udder of the cow were brought in contact with an abrasion of the skin of the hand, by scratching or scarifying artificially and transferring such virus, a certain protection would be secured. Later on, in some countries, it became the custom to take the lymph (virus) from the vesicles of children who had been previously vaccinated with the virus (lymph) of animals (bovines). But the use of such so-called humanized lymph has been discarded, for the reason (notwithstanding the most healthy children were selected for that purpose) that hidden (?) specific diseases, such as syphilis, gonorrhœa, scrofula, etc., were probably transmitted along with the virus to other children so vaccinated, and that, owing to such supposed infection, very sore arms, and even death, had followed. Therefore, up to the present

time, only vaccine virus taken from the udder of the cow or heifer—animals kept solely for the purpose of artificially producing such vesicular eruption on their udders—is used. But, in spite of such precaution, sore arms were occasionally encountered, so the ingenuity of manufacturers who were loath to lose such a lucrative business, invented the sterilized (?) glycerinated virus, to make the sales still more remunerative.

Now the cleverness, if not worse, of such ingenuity must be apparent, if we consider for a moment “sterilized lymph.” Sterilizing means purifying; the rendering of infection impossible; but how such a lymph, considered as a “virus,” can produce an infection, or, in other words, transfer the virus of pox pustules to others, in a disinfected state, goes beyond my modest personal conception.

Of somewhat recent date, there has been presented another supposed cause of certain specific diseases, especially of malaria and yellow fever—that is, through the stings of mosquitoes; or, to make the matter plain, a mosquito that stings a person suffering from either of those diseases is supposed to transfer the specific poison (?) to healthy persons, who thereby contract such diseases.

Now, let us attach rational reasoning to such proposition, and we must come to the conclusion that, if such a poison as is supposed to lurk in malaria or yellow fever can be carried by a sting to healthy persons, then the virus used in vaccination ought to produce smallpox, instead of preventing it; this is certainly a rational inference. On the other hand, if vaccination would be a protection against small-

pox, the sting of a mosquito, as a carrier of a specific virus, ought to be a protection against malaria or yellow fever, and not be the means of producing it.

Vaccination has been enforced by legislation, in some localities, prompted by a supposed philanthropic inspiration on the part of the profession, for the purpose of protecting the community against the ravages of smallpox, and boards of health have insisted that, at least, school children must be vaccinated as a condition of their attending school; and we all know that it is the anxious ambition of parents for their children to acquire as complete an education as possible. This compulsory method has proved very effective, and, at the same time, very profitable to some members of the profession. In order to support such a procedure, statistical tables were prepared—of course, by the doctors, as the promoters—to prove the efficiency of vaccination; yet, in spite of it all, many fair and very conservative physicians of prominence denounce vaccination in the severest terms; and I indorse all arguments advanced against such a measure.

Now, any reasoning person should be able to perceive that cowpox can not be identical with human smallpox; and, besides, the former is rarely found as a natural consequence on the udders of cows, excepting when, as has been mentioned, artificially produced from cow to cow, and so is kept going indefinitely for the sake of benefiting the purses of manufacturers. Smallpox in man appears on almost the entire surface of the skin, especially on the face, neck, or arms; yet it very rarely appears on the breasts (*mammæ*) of females, while, in the

cow, only the udder is so affected. Now, if the lymph of both cow and human be identical, animal virus should produce smallpox in man; yet such a thing never happens. But smallpox patients do infect persons who come in contact with them; provided, however, that certain predisposition to that disease exists; and, almost certainly, the fear of being infected acts as the greatest factor in transmitting that disease to many individuals.

It is a fact that persons who never had been vaccinated have acted as nurses of smallpox patients, yet did not contract the disease; while others who had been successfully vaccinated did contract it, in such a malignant form as to lose their lives. Many persons not vaccinated at all have escaped the disease, although belonging to the same family as those afflicted, and attending them while sick; which proves that those persons were not susceptible to smallpox.

Many physicians advance the theory that the power of protection exhausts every seven years, although unable to give a rational reason for such assertion.

On the other hand, we find individuals whose organism rebels against such procedure; in other words, "vaccination does not take." Therefore, I would be rather inclined, everything else being equal, to suppose that such persons were positively not susceptible to the disease.

It is also true that thousands of physicians who know, or, at least, believe, vaccination to be a mere fad, vaccinate either as a source of income or to gratify the wishes of patrons, or to comply with the

requirements of the law, but, at the same time, would be much delighted to see such requirement repealed. Others, of course, are doing their best to have present provisions enforced, believing sincerely and conscientiously in the theory of positive protection; hence they practise vaccination for the safety of the population against smallpox. Another important matter is that of establishing a correct diagnosis, which often requires the counsel of a consultant, or a health officer. For it is a fact that some skin eruptions resemble very closely the appearance of smallpox, and it has happened that a quarantine was ordered for a certain case which proved to be a benign pustular skin eruption; but it had the effect of frightening a whole neighborhood, who were then more than willing to submit to vaccination or revaccination. This proved to be a very clever and remunerative accident. It is hoped that this antique procedure may ere long be discarded as an irrational measure, and the public will have reason to give due credit to rational, thinking physicians, who have exerted their influence for such a result, because of an earnest solicitude for the physical welfare of the people.

Following are opinions from prominent doctors concerning the question of vaccination, taken from *Natur Heilwissenschaft* (*The Journal of the Science of Natural Healing*), May 1, 1901, and translated from the German:—

Dr. Schlegel, of Altenburg, writes, "Vaccination is a horror to natural science!"

Dr. August Wilhelm Koenig exclaims: "Vaccination with cowpox is a horrible crime against all humanity!"

Dr. Rittinger, of Stuttgart, also declares vaccination a crime against humanity—"a national calamity."

Dr. Bolle, of Aachen, writes, "Compulsory vaccination is the apex of medico-sanitary aberration!"

Professor Hamernik declared in the Bohemian Legislature at Prague, "Vaccination is a blot on medical practise!"

Dr. Mertens, of Berlin, says, "The lymph of vaccination is suds (filthy fluid); the supposed protection a humbug."

Dr. Succo, of Crailshaim, says, "Vaccination does not protect against smallpox; on the contrary, the human system receives the poison of pox; the protection is, in my eyes, the commonest gypsy lie."

Dr. Collins, an English vaccination expert, who, during a period of twenty-five years, vaccinated thousands of children, makes the following confession: "If I should tell but the third part of the miseries of the victims of my own vaccinations, the public would be amazed at such atrocities!"

Dr. Weiss, of Neuenburg, exclaims, "I ought to be hung on the highest tree in the forest as a punishment for my crimes of vaccination which I have committed amongst the people!"

The director of the pesthouse at Wieden, in Vienna, Dr. Lorinser, one of the highest authorities on this subject, considers vaccination "the remnant of Asiatic superstition!"

Such verdicts should dissipate any reasonable doubt as to the efficiency of vaccination.

Public Supervision of Health.—In almost every state, county, or city, boards are created for the pur-

pose of maintaining a healthy condition of the population, and to provide for the prevention or limitation of contagious or infectious diseases. And it must be admitted that such efforts should receive the highest praise, if prompted by an unselfish and philanthropic spirit, for the purpose of securing a good state of health. There are also attached to such boards, especially in the larger cities, so-called scientific experts, as, for instance, a bacteriologist, analytical chemist, veterinary surgeon, inspectors for dairies, and of milk or foods for common consumption, besides a number of persons to disinfect premises, etc., etc.

Bacteriologists will examine samples of suspicious diphtheritic deposits, the sputum of tuberculous patients, evacuations, and other matters connected with typhoid fever, etc., to confirm a first diagnosis. Yet such reports are not considered as final, or as positive proof of a correct diagnosis; but are merely recommended to be taken into consideration in connection with more positive clinical evidences. Hence an experienced diagnostician will base his judgment rather on pathognomonic (positive) symptoms as best guides for a correct diagnosis and treatment.

At this point it seems proper to discuss briefly the latest illusory theory evolved from the brains of theoretical pathologists who maintain that all, or most all, diseases are caused by a specific bacillus, or germ, and make the heroic effort to find a bacillus for such diseases that has not been found as yet, in order to have their names glorified among such illusionists as Pasteur, Koch, Behring, Klebs, Löffler, and others.

Time will confirm my conviction that nothing could be more irrational; for the absence of bacilli, as has been admitted, would not disprove the presence of a certain specific disease; while, as is also admitted, the presence may give negative results in some cases, and a diagnosis must be sustained by other clinical evidences. Yet the true *rationale* must be sought in the fact that bacilli are only found in rather advanced diseased conditions, hence can not be considered as the primary cause of any specific disease, but as the effect of such conditions.

It may be mentioned that, perhaps owing to sanitary regulations and inspection of premises, contagious diseases, especially smallpox, diphtheria, etc., have remarkably decreased; but whether this fact can be solely attributed to the labors of boards of health, or that it is the consequence of more enlightened civilization in observing cleanliness, may remain an open question; while consumption, or tuberculosis, is decidedly on the increase, owing to the many errors of diet, hygienic defects, and the life of modern society; and all efforts to lessen the occurrence of these diseases have been, in spite of all energetic measures of boards of health, very unsatisfactory.

I have given all these matters very careful study and consideration for years, and have arrived at the conviction that many sanitary laws, ordinances, or other regulations, have proven of questionable value; in fact, some of such measures have fallen deservedly into ridicule, on the part of physicians as well as the people. The warning of doctors and the public of the great danger of infection may prove to

some extent appropriate, but there is no doubt that no irrational extreme ever can accomplish any good purpose.

Arbitrary or compulsory measures, which may be justly questioned and regarded as really unnecessary or irrational by many doctors, may frighten the general public to some extent for some time, but will eventually be replaced by common-sense reasoning, and will, if not sustained by the family physician, lose their supposed beneficial influence.

Perhaps the most effective, and, at the same time, a very inexpensive, plan, would be for each member of the medical profession to become a voluntary health officer and assistant to boards of health. If all would unite in educating the people in the matter of living properly, advising them as to what precautions are necessary either for the purpose of maintaining health or for preventing the occurrence and spreading of contagious diseases, a most inestimable service would be rendered to a community; and the principle would be established that man is not born for disease, but for health.

If such an ideal could be realized, it would perhaps be a great discouragement to a multitude of aspiring young men who desire to enter the medical profession, as indicating that so many physicians are not needed; but the health officers would have the gratification of being the most unselfish and philanthropic members of society, and would deserve the highest honor in any community.

Disinfectants.—For the purpose of rendering expectorations, evacuations, and a poisoned atmosphere innocuous, or harmless, such medicinal substances

are used as are supposed to destroy germs, bacilli, or other micro-organisms.

Such a precaution could not be reasonably condemned, were it not for the very poisonous nature of most substances which, owing to their cheapness, are available for such a purpose. Such substances, as carbolic acid, corrosive sublimate, and others, besides giving an odor very disagreeable to all, will often annoy patients more, when used in the sick chamber, than the actual disease. Therefore, free ventilation is far superior as a disinfectant, being also cheaper and pleasanter. The disinfection of the expectorations of consumptives, and the discharges of typhoid patients may properly be practised yet to frighten people unnecessarily can not be justified. Discharges from the bowels should be immediately removed from the sick chamber, to avoid the inhalation of unpleasant odors, as well as for the sake of cleanliness.

I never have known the expectoration of consumptives or the discharge of typhoid subjects to be so highly contagious as has been assumed; but, to overcome any possible doubt, and to observe cleanliness, all such materials should be destroyed, or rather burned, instead of being thrown on the surface of yards or gardens to become a disgusting sight.

But the necessary disinfection must be left to the discretion of the attending physician, or board of health.

PART SECOND

The Causes of Disease

Introduction

We have seen in the foregoing part what constitutes the essentials of health, and that any deviation must act as a cause of disease or ailment; and, while it may be almost impossible to strictly adhere to all hygienic principles, yet we should strive to approach as nearly as possible to perfection, and be guided rather by common-sense reasoning and natural laws than by elaborate scientific propositions or theories.

It is a fact that most earnest efforts have been made to solve the important problem of what really causes disease; hence it is not at all surprising that, in the absence of positive proofs, many suggestions, illusions, suppositions, and theoretical speculations have been advanced; and it is really surprising that even highly educated persons have been made to believe the most absurd fancies of scientific speculators as to the real causes of disease. For the purpose of assisting in clearing such subjects of all mystery, this effort is undertaken, based on experience and practical reasoning.

CHAPTER I

DIVERSION FROM RULES OF HYGIENE

It must be admitted as an undeniable fact that any serious deviation from the true laws and principles of hygiene must not only produce disorders in the organism, presenting themselves primarily as functional disturbances, but also result finally in organic diseases.

To make the foregoing remarks more apparent, we must reflect on the principles laid down in Part First regarding the essentials of health, and we readily understand that, for instance, a wrong diet will produce a variety of disorders and diseases, such as dyspepsia, indigestion, constipation, diarrhœa, stomach and liver troubles, as well as, indirectly, piles and fissures of the rectum.

The kidneys will also suffer, if sufficient fluid is not conveyed to the blood, through which those organs would be enabled to eliminate, in necessary solution, all deleterious solids from the system, and to return the remaining purified blood into the general circulation.

Insufficient clothing, or careless exposure to drafts or very inclement weather, will produce bronchial or pulmonary (lung) affections, leading often to serious complications.

Any imprudence, or excesses of any kind, as has been previously mentioned, will cause a great vari-

ety of disturbances, which it will be impossible to mention in detail in this brief discussion. We must therefore confine ourselves to the discussion of some rather extraordinary causes which have not as yet received deserved consideration.

CHAPTER II

IMAGINATION AND SENSIBILITY

As modern refinement increases, the sensibility of impressions of individuals becomes more and more apparent, so that often very slight inconveniences inspire a thought of serious ailment. And we can hear, almost every day, especially among persons rather favorably situated, such answers to questions as these: "O, I am not quite well;" "I have such distressing feelings;" "My heart hurts me so;" "My stomach is entirely out of order;" "I have such a headache;" "I feel so awfully weak;" "I am so nervous;" "I am totally prostrated;" "I fear a very severe sickness will befall me;" and other like complaints.

Now, most of such complaints can safely be traced to oversensibility, or to imagination; for, as a rule, it is the thought (suggestion) that prompts such exclamations. We know, also, that fright, worry, anger, and other emotions are capable of producing almost any manifestation of disease or ailment, as also more or less severe disturbances of the nervous system, even up to a degree of insanity, or disorders which may finally end in serious complications.

If there exists a strong will to disperse all such thoughts of supposed misery, reinforced by perfect contentment of mind and body, a most wonderful influence will be exerted on the system, and will do more toward diminishing the causes of disease than

almost any other agency, and, at the same time, prove far less injurious than meddlesome doctoring and strong medicines.

Dr. Emmet relates the following three very interesting and instructive cases, confirming the correctness of the remarks previously made in this article:—

“Several years ago, I was sent for to see a young married lady, residing in the western part of this state, who had been a helpless invalid and confined to her bed for some five years. I made my examination about 9 o'clock in the morning, but with great difficulty, on account of her apparent feebleness. In fact, she would have deferred the examination, on account of her condition, had it not been that great importance was attached to my visit, which had been unavoidably postponed several times on account of my business. I was surprised to find no uterine difficulty, excepting a slight degree of retroversion (backward bending of the womb), and the organ rather lower in the vagina than natural—certainly nothing to keep her in bed, as there was not the slightest tenderness to be detected by the finger at any point.

“I was puzzled to decide as to what course to pursue, for I was satisfied that if any local disease ever had existed, it had gotten well without her being aware of the fact. I felt that it was necessary to get her out of the bed, without the mortification of knowing that no local disease existed, and that I would fail if she were told the true condition. It was Sunday, and I was obliged to remain until night, awaiting the arrival of the train; it was in the coun-

try, and in the midst of a snowstorm; there were some eight hours at my disposal, and I determined to devote the day to her case, and see what could be accomplished by force of will, after gaining her confidence.

"I first entered into the fullest detail of her past history, but could elicit from her little more than monosyllables. I then branched into literature, science and the arts to the fullest extent of my knowledge. But at the end of two hours I had apparently made no impression, and was almost in despair of being able to find any subject of common interest to us. At length a casual remark about autographs promised better, for I learned that in the garret there was stored away a collection made by her a number of years before. I had it hunted up, and soon found that I was making progress. I gradually got her interested sufficiently to induce her to rest on her elbow, and tell me all the particulars as to who the local celebrities were, and under what circumstances each letter had come into her possession.

"After I had steadily talked for more than two hours, and she for three, we had become the best of friends, and I began to think of getting her up to dinner. I suddenly asked, 'Are you not now relieved of that feeling of great pressure from which you have suffered so long?' With an expression of surprise, she said, 'Why, yes; entirely so.' 'That is just as I expected,' I remarked; 'so we will send for your maid to get you ready for dinner, since you are not going to let your husband and myself dine alone when you are so much relieved.' 'Doctor, are you

serious? Do you think that I can get up?' 'Certainly, I know that you can; and for what purpose did I come from such a distance but to relieve you?'

"I had her limbs thoroughly rubbed, had her dressed, and then assisted her into dinner. She occupied a seat alongside of me, and I exerted myself to the utmost to keep her interested and to keep the conversation from flagging. After the lapse of half an hour I saw that she was too much exhausted to remain up any longer, although she was making every effort. She remained lying on the sofa for an hour or two, and then, at my suggestion, walked with the aid of her maid up and down the entry for a while, 'to test what I had done.'

"When I left the house for the train, she waved a farewell to me from her bedroom window. Two weeks afterwards she walked into my office in New York, and has since been well."

"About eight years ago, a young unmarried woman was brought to me from one of the New England States, through the advice of Dr. Wm. H. Van Buren, of New York. She was moved on a stretcher with great difficulty, and had been confined to her bed for some four years. She had indeed become a skeleton in the house, from the amount of attention she required, as she was unable to feed herself or move without help, and would only sleep at night with the gas burning brightly, and with some member of the family to sit up with her. Moreover, she was so willful that, to annoy those in charge of her, she would sometimes deliberately have a movement of the bowels or empty her bladder in bed. When I

attempted to examine her, she persisted in keeping her limbs rigid and straight; she would not answer a question, and lay with her eyes shut. By watching the expression of her face, I judged that every portion of the vagina was painful on pressure, and yet I was not sure but that she was enjoying a little spiteful pleasure in misleading me.

"I, however, could detect nothing wrong, except that the uterus was rather larger than natural, and very much anteverted (inclining forward). The father, mother, and aunt, and several members of the family were anxiously waiting to hear the result of my investigation. They had come prepared to spend the winter and to be on the spot while the patient was under treatment. This circumstance embarrassed me more than the condition of the patient, but I quickly determined on the course to be followed. I told the father that I had found out the difficulty, but it was necessary that I should not enter into any further particulars; and, to enable me to carry out my plan, he and his family must return home by the next train, and without taking leave of the daughter. If they would do this, I felt certain that I could cure her; but, if unwilling, they must seek the advice of some one else. As I went on, attending to my business, they remained staring at me in a state of surprise and indignation, and did not make up their minds as to the course to pursue until the last moment before time to take the train.

"I went up to see the patient soon afterwards, and found her lying with her eyes closed, as I had left her. I remarked, 'Well, you are now fairly in the hands of the Philistines, for your father, mother,

aunt, and all of them have returned home without even bidding you good-by, and I have now got you entirely in my power.' I saw that I had made an impression, but she soon recovered her self-possession. I told her all in the house were but part of a machine, with no thought beyond carrying out my instructions. That I was a very devil when roused, and bade her look at me well, and see if she did not think I was fearfully in earnest.

"I noticed that her eyelids slightly parted, as curiosity tempted her to see if I was really what I represented myself to be. I continued, and stated that as long as I had my own way I was as gentle as a lamb, but I would give her fair notice that she would live to regret it if she ever deviated from my instructions. 'To-morrow,' I said, 'at 10 o'clock, I will begin to see the patients in my office, and you must be dressed at that time. I will call for you, and if you are not dressed, I will play the lady's maid, and with no light hand, for it will be a very busy part of the day with me. I shall remove that nightgown, and put on your flannel undershirt,' etc. I then slowly enumerated, in order, every article of a female dress I could think of, even to a napkin. This was too much for her, and she opened her eyes, saying, 'You are a brute, sir!'

"I directed that her meals should be placed alongside of her bed, that she might feed herself, but I believe she ate nothing. She was told that, until she became civil, she would be left to herself as far as possible. At 9 o'clock her gaslight was turned out, and she was heard sobbing several times in the night, as the nurse passed back and forth in

the passage-way. In the morning, I learned from the nurse that she evidently intended to brave it out, and that nothing whatever could be done for her. At 10 o'clock I entered her room, but her courage had failed her at the last moment, on hearing my footsteps, and she was wildly trying to pull on a stocking under the bedclothing.

"I saw at a glance that I had conquered. I spoke to her kindly, bade her lie down, and said that I was glad to see that she had made up her mind to help me, and, as she was still fatigued from the journey, she could rest until the next day, but that then she must be up.

"During the day she was quite friendly with the nurses, and the next morning I found her dressed with their aid. I gave her my arm to assist her to the elevator, helped her into the office, and made a most satisfactory examination. She remained for half an hour on a sofa in the parlor, and then I allowed her to return to her room. In a few days she was out riding in a carriage; soon she was able to walk out, and at the end of a month she returned home, well. She became very much attached to me in a few days, and I never had a more tractable patient. The treatment consisted in hot-water vaginal injections, and several applications of iodine over the whole vaginal canal. She was also well rubbed twice a day from head to foot, had all the fresh air and sunlight she could get, and some medicines to regulate her bowels."

"Two years ago, a lady from the South came under my charge who had been confined to her room

about six years; that is, since the birth of her last child. She was not bed-ridden, but had suffered after her confinement from so much pain and bearing down, when on her feet, that she had gradually fallen into the habit of an invalid. She would seldom remain in bed all day, but would be partially dressed, when she felt so disposed, and then lie on the bed or sofa in a wrapper. To the surprise of herself and friends, my first prescription was a hoop-skirt and a black silk morning dress, to be made in the latest fashion. I insisted on having these procured before doing anything else, and as I found out that she had never worn a hoop-skirt I looked forward with great interest to its beneficial effect.

"By my direction she was dressed in full one morning, but I believe the hoop-skirt was not a success, because of the difficulty in arranging it as she lay on the bed. But I confiscated the wrapper, and, as if by accident, had her left alone. My anticipations were fully realized; for, on going into the room shortly afterwards, I found that her curiosity had conquered, for she was in front of a looking-glass observing the general effect, and arranging her hoop-skirt. I had also ordered a fashionable style of bonnet to be purchased, which was then put on, and she was sent out for a drive before she had time fairly to realize the situation. Having thus once broken the spell, the treatment of her case progressed rapidly."

These cases show conclusively the power of imagination in certain persons, and that confidence in a physician will often do more for a patient than any other means.

CHAPTER III

INFLUENCES OF LOCALITY

We have already seen, under the heading of "Climate," that certain localities have special advantages pertaining to health, and this is also true with reference to causes of disease. And we observe that certain diseases only occur in special localities, hence have to be attributed to local causes, such, for instance, as a bad atmosphere, which, being inhaled by the lungs, enters the blood stream. We also find that evaporation and combustion in low, swampy lands develop miasma, causing many forms of malaria, such as intermittent and remittent fevers, as also a variety of complications, as typho-malarial and bilious fevers, which render the primary disease less amenable to appropriate treatment.

It can not be shown that there is any other cause of such fevers than the evaporation of obnoxious and miasmatic gases, which penetrate the atmosphere and enter the system by inhalation (inspiration) and produce such powerful phenomena as chills, high fever, and sweating, in various degrees of severity. But while these three symptoms constitute a typical case of malaria, and clear any doubt of proper diagnosis, yet it must be remembered that one or two of such pathognomonic (certain) symptoms may be wanting, yet the success of specific treatment will clear any possible doubt.

It is also true that the reasonable explanation of such facts sustains the supposition that circumstances

may cause certain accumulations of such poisonous influences in the blood to excite the outbreak of an attack of malarial fever and such principal complications as have been mentioned. The fact that the evaporation of miasmatic poisons is the exciting cause of malaria is proven by the entire absence of such diseases in low, swampy lands in more northern climates, where combustion and evaporation are unknown.

But it is also a fact that there exists in some individuals a certain predisposition, or susceptibility, to certain specific diseases; yet the majority of people are really immune, and therefore escape the ravages of malarial disease. In other words, a poisoned atmosphere may not be injurious to one individual, and yet seriously affect another, according to susceptibility.

Now, that malaria is very rarely found in higher altitudes or very temperate climates, proves also the correctness of the theory here presented concerning the source from which such diseases are contracted.

CHAPTER IV

INFLUENCE OF CIVILIZATION

There is no doubt that many diseases can be traced to modern refined living, or, in some instances, inadequate nourishment in proportion to required exertion in providing maintenance. When we consider that, amongst primitive races, scarcely any diseases prevail, it is apparent that the higher the degree of civilization, the more prevalent are a variety of so-called modern diseases.

It may be argued that early history tells us about the occurrence of so-called pestilences and malignant skin affections; but such epidemics must be traced to the crowding together of numerous individuals in inadequate quarters, and living in very unsanitary surroundings. It follows, then, that the enjoyment of the utmost freedom by any people, and the following of natural or instinctive methods for the maintenance of life, must be the best safeguard against disease.

We must also consider that artificial or forced interference with nature's laws concerning the human organism, on the part of physicians, surgeons, obstetricians, or the individual patient, is the cause of many disturbances or actual diseases which never would have occurred if any such meddlesome practice had not been indulged in.

Another comparison may be permitted, namely, that, owing to common custom and economy, domestic animals are kept on plain, simple food; and it

must be admitted that disease amongst such animals is far less prevalent than amongst human beings, notwithstanding that owners often brutally, and without consideration, abuse such animals, causing them to suffer, in addition to which they are often subjected to real want on account of carelessness on the part of keepers. Now, wild animals, owing to their entire freedom to follow natural instincts, rarely become sick, and, if such should be the case, nature would rectify any disorder.

CHAPTER V

ALCOHOLIC STIMULANTS

The principal kinds for ordinary use are *whisky*, *wine*, *cider*, and *beer* in various forms. The drinking of certain stimulants has developed into a real habit in some countries, and is considered a necessity (?). A moderate daily use has, perhaps, no specially deleterious effect on the organism, and this is especially true in reference to wine, cider, or beer, but can not be sustained as to alcohol or whisky. And even small amounts daily, so-called tipping, are, in proportion to habit or idiosyncrasy (susceptibility), accountable for more or less disturbance and actual disease. It is said that there exists a noteworthy relationship between incidents of alcoholism and insanity, venery, and crime, but such conclusions seem to me somewhat exaggerated. But it is a fact that the excessive or constant use of alcoholic liquors may favor degeneration of certain organs, especially the liver, stomach, and kidneys, and cause affections of the nervous system, such as melancholia, delirium, and even epilepsy or insanity. And it is probable that alcohol may increase a tendency to rheumatism and gout; but that it should favor infection, I have never been able to substantiate. Whisky slaves also often use pure alcohol, and children of drunkards are known to inhale gasoline for the purpose of inducing intoxication. Whisky would probably best be discarded altogether for everyday use, and merely used occasionally, or as medicine, when indicated,

and a great many disorders could thus be prevented.

Beer, wine, cider, and such like drinks, containing a very small percentage of alcohol, never will do harm if used in moderation, but they may finally form a bad habit. It is evident that when beer is excessively used, it is apt to produce fatty degeneration, especially of the heart; while wine and cider have rather the opposite effect, giving a certain degree of buoyancy and delight, to prosecute severe studies. Yet, after all, I would advise the youth not to acquire any such habit, as by a good, nourishing diet all such drinks can be dispensed with.

We also must mention in this connection the *opium, morphine, cocaine, caffeine, chloral, ether, chloroform, cannabis indica* or *absinth* habits. The excessive use of these things must result in physical as well as mental impoverishment, and is liable to produce a greater variety of diseases than any other cause, and finally reduce a person to a physical wreck, ending in premature death.

CHAPTER VI

TOBACCO

We must now turn to another article, the use of which is a bad habit, and that is, tobacco. It would be better to abstain from its use entirely, either smoking, chewing, or snuffing, yet moderate smoking, especially after meals, may not be injurious. But an excessive use will produce diseases of the heart, nervous irritability, disturbance of digestion (through constant spitting), impairment of vision (usually of both eyes), and even total exhaustion. The worst form is cigarette smoking, which has brought many a bright young man to an early grave. In some cases it causes consumption, and, after lingering along a shorter or longer period, the victim must succumb to the disease thus contracted.

CHAPTER VII

EXCESSES

Lastly, as a fruitful cause of many diseases, must be mentioned sexual excesses, or unnatural gratification in various ways not prudent to be explained in detail here. But such ill-conceived indulgences, and sometimes artificially created desires, must in time produce very serious disturbances, especially of the nervous system, more particularly when indulged in in early youth, causing impotence in the most important period in later life, when such functions should be in the prime of highest activity. Such practises—I may say crime—against nature, must certainly result in premature senility or early death.

It is very much to be regretted that children, say ten to fourteen years of age, know more about *sexual relations* than did the youth of fifteen to twenty in former times; and, if we are frank and impartial, we must admit that the fault is to be found in the *early mental development* which is a consequence of our civilization, greatly supported by an elaborate early education, whereby children in their early youth are rendered competent to read and understand scientific and fictitious works. And it is an open secret that stories filled with love sensations or sexual vulgarity are eagerly sought for, which not only gratify curiosity but inspire a desire to test their practical reality.

CHAPTER VIII

SUPPOSED CAUSES

In the foregoing pages we discussed in detail the many real causes of disease, but we must also present some supposed causes, advanced by scientific theorists or bacteriological specialists, and unconditionally accepted by a number of medical men who believe in authorities.

In assuming a different position, I may at present expose myself probably to severe criticism, or perhaps undeserved ridicule; but I have the personal conviction and consolation that the time is not far distant when the medical profession will cast off all irrational principles and return to practical facts.

I will now present these matters in as convincing and plain a manner as I am able, and enter a pioneer field with other colleagues to show the unfeasibility (I would not say absurdity) of the theory that such supposed infections by insects or micro-organisms are primary causes of disease.

Mosquitoes.—The latest theory is that mosquitoes cause malarial fevers, but by reasoning from cause to effect, the unfeasibility is apparent, because, as a rule, we find mosquitoes most prevalent where low, swampy lands and stagnant water abound. Now, we have seen that only a comparatively small number of individuals are attacked with malaria or other specific diseases, while the majority of people living in the same locality remain immune, and that a susceptibility (predisposition) does generally exist;

while, if this species of mosquito were the cause of malaria (as these insects have no special preference in their attacks upon people, but sting all persons alike), all would be infected. Yet it is true that persons who never have received any stings from mosquitoes, having guarded themselves with screens or otherwise against the annoyance of these little pests, have nevertheless contracted malaria, often in severe form.

If mosquitoes could be the real cause of malaria, the proper and only remedy would be to destroy them. Yet, if this could be accomplished, and the miasmatic atmosphere should continue, malaria would still be a prevailing disease in such localities.

It is said that there is another species of mosquito, supposed to produce yellow fever, by carrying poison from a diseased subject to a healthy one, and that if patients so affected were screened off to prevent the infection from being thus transmitted, a healthy person (non-immune) might sleep on beside a patient and not contract the disease. This would conclusively (?) prove that yellow fever is a non-contagious disease, as far as personal contact and atmospheric influences are concerned. But the feasibility of such a course is more than questionable.

Now it should be at all times, and in all diseases, our sacred duty, as much as possible, to spare a patient from annoyance, pain, or discomfort; but that screening off should, besides for such a purpose, act as a safeguard to prevent infection, will never be substantiated. As we have seen, malaria is prevalent in certain localities where miasma penetrates the atmosphere, and yellow fever, which may be consid-

ered akin to pernicious bilious malaria, occurs only in more tropical climates; hence the theory of infection through mosquitoes never can be proven. It is a fact that, owing to better drainage and sanitary conditions, yellow fever is greatly decreasing.

Now we know another fact, that if, during an outbreak of yellow fever, or the prevalence of malaria, a sudden change of temperature to a lower degree takes place, it will be far more effectual in checking the ravages of such diseases than any medicine or regulation of public supervisors or physicians. And we also know that, in a rather low temperature, malaria is very rarely contracted, and that such a disease as yellow fever is never found, excepting, perhaps, in such light form as to be taken easily for another ailment, in temperate climates.

Hook-worms.—Another insect, or rather worm, has lately been discerned in Porto Rico, which is said to suck the blood of the inhabitants and to cause a certain specific anæmia, the effect of which is to bleach sun-browned people white(?) This supposed hook-worm is probably somewhat analogous to the German leech, the latter, perhaps, being satisfied with a smaller amount of blood. It is certainly rational to suppose that those hook-worms, in extracting, or rather sucking, so much blood from their victims, would effect a real depletion, which is, at least, a questionable inference, and perhaps never will be substantiated by positive evidence. I am rather inclined to the opinion that, in very hot climates, where people, under the pressure of civilization, are spurred to unusual employments in order to comply with the additional requirements of liv-

ing, such conditions are the result of natural consequences. If the diet be not changed to replace the effects of unusual physical exertion, the constituents of the blood will become impaired. This, of course, is only a personal inference.

Micro-organisms.—Closely allied to animal life, as above cited, there has been discovered vegetable life, presented under a variety of names, such as bacilli, bacteria, microbes, etc., as supposed unicellular plants, and lately the gonococci in gonorrhœal pus. And to find specific bacillus as a supposed cause of disease is now the greatest effort of bacteriologists. It is said that these micro-organisms are multiplying very rapidly under favorable (!) circumstances, and are found in tissues as well as in secretions and discharges, which will be more fully considered later on, when we come to consider certain diseases.

But what concerns us especially here is the proposition by scientists that such micro-organisms are believed to be the *exciting cause of certain diseases*. In taking a position different from that of so-called scientists (bacteriologists, etc.), and their rather numerous followers, who believe in so-called authorities, time (the true test of all things) will prove the correctness of my conclusions based upon rational reasoning. And it is my firm conviction that, in time, the whole *bacteriological theory* will fall into oblivion. But I wish to discuss this subject, not in a spirit of ridicule or sarcasm, but solely from a desire to assist in establishing the truth, and, agreeable to the spirit of this work, present this matter in a plain and convincing manner.

Prominently there comes in consideration the so-

called tubercle bacilli, supposed to be the primary and sole cause of tuberculosis and consumption. We are informed that, in Germany, it is proposed to inoculate calves with tubercle bacilli, on the principle of vaccination, to prevent the occurrence of tuberculosis in later periods of life. First, it was proposed to cure tuberculosis with tuberculin (or cultures of bacilli); then it was used to confirm a diagnosis; but now it is proposed as a preventive. What inconsistency, what theories, from these German scientists! So, also, the diphtheria bacillus in diphtheria, typhoid fever bacillus, the gonococcus of gonorrhœa, and many others yet to be discovered; for it seems now the greatest ambition on the part of pathologists, bacteriologists, or microbists, to discover a specific bacillus, if possible, for all diseases, and to make their names prominent and luminous in the scientific world.

That there may be found bacilli (micro-organisms) in some special diseases can be true, but their entire absence in the same disease is also acknowledged in cases of otherwise confirmed diagnosis; and this fact ought to also show very plainly that specific bacilli can not be the cause of any disease, as has been asserted.

In order to appreciate the true nature and existence of micro-organisms, either animal or vegetable, and to explain convincingly as to cause and effect, we need only apply rational and practical reasoning to arrive at a correct understanding. And to do this for the benefit of the general public, I will resort to a comparative illustration: Take, for example, such substances as cheese, meats, or

even fruits and vegetables, and we observe that, when in a state of putrefaction or decomposition, as the case may be, maggots, worms, or other parasites appear in more or less numbers, multiplying as such changes progress. And if we should attempt to transfer any of these parasites to substances in a perfectly healthy condition, they would lose their vitality and perish. This proves that such life is not capable of producing decomposition or putrefaction; hence it must be considered as the product or consequence of such transformation, and not as the cause of it.

Take, for another example, men working in tanneries, amidst decomposed materials, hence micro-organisms, yet very rarely have I heard of a case of tuberculosis amongst such workmen; this certainly deserves earnest reflection.

Now, coming back to the bacilli and other micro-organisms, we may compare the analogy of maggots, vermin, etc. As far as the meaning of their presence is concerned, it must be clear that any such micro-organism can not be considered as existing causes of disease, and that their presence is dependent upon abnormal changes of organs, tissues, or secretions of the body, and in the degree that such mortification, putrefaction, and decomposition advance, such special micro-organisms will appear and multiply, as they find favorable conditions. In other words, decay favors the development of microbes, instead of microbes favoring decay. Such an explanation is certainly the only logical and rational one that could be presented.

It may also be appropriate, in this connection, to inquire into the so-called germ theory, as very

strange and conflicting opinions are advanced concerning it. If we reflect a moment, we find that all living organisms have their origin in certain germs, as, for instance, the germ in a grain of wheat, or other product of field and garden, as the factor of reproduction. And a very plain and convincing proof is found in the difference between a fertilized and non-fertilized egg; the one will bring a chick, the other will not. In a previously fertilized but rotten egg, we find that the germ element has perished by some destructive influence; in other words, the germ has lost its vitality. But this germ has not been the cause of the rottenness in the egg substance; and, for the same reason, a germ never can produce disease, but reproduces *its own kind*. All favorable fields for the *propagation* and *multiplication* of such supposed specific germs are found in diseased structures.

It is also believed that microbes, swarming in the air and having access to wounds, produce putrefaction, or suppuration, and, by entering into the circulation—that is, mixing with the blood stream—produce blood-poisoning. This is another ready inference to cover our shortcomings, errors, or ignorance in rather obscure conditions, often causing the death of a patient. It is also an easy way of consoling relatives, and perhaps to escape severe criticism.

This supposition has been the impulse of inaugurating the so-called “antiseptic surgery” theory advanced by Professor Lister, who used carbolic acid in various proportions to kill the germs, or to keep wounds free from these micro-organisms. Although some of the greatest men in the profession advocate

this theory, using quite a variety of antiseptics, yet many prominent men define antiseptic surgery rather as a method of the utmost cleanliness (asepsis), draining off morbid matter, and excluding atmospheric air by sealing wounds as much as possible. Time will prove the rationality of the latter course, which may be called simple asepsis, and which has my decided approval. To enter into further discussion would be out of the question in this work.

It is a rather difficult task to define contagious and infectious diseases, but it is generally believed that a contagious disease is contracted by some poisonous (contagious) matter, prevalent in a certain locality, while an infectious disease is supposed to be transmitted from person to person. There may be many very plausible arguments against the theory of direct infection from individual to individual; nevertheless, during a prevalence of certain specific diseases, persons may be so affected, yet a majority escape the ravages of such diseases. And very often nurses attending such patients do not contract the disease, in spite of having occupied the same quarters and being exposed to all the contagious (?) influences. It is also a fact that cases are often greatly exaggerated, especially by neighbors, and an imminent danger reported, so that, if rigid measures are ordered, people will more willingly submit to any restrictions or other regulations stipulated. For my own part, I would rather have no special fear of a certain direct infection—that is, solely by personal contact with such diseases; I prefer to attribute epidemic diseases to a certain contagion acting on the organism either from without or within, in the de-

velopment of contagious diseases. The danger of direct infection is, for obvious reasons, greatly exaggerated, and the horror of contracting such diseases has at least as much to do with their severity as any other supposed cause. In this way the spreading becomes more general, while a prevailing calm spirit would perhaps confine such epidemics to more isolated cases.

But, to give the public the benefit of their doubt, or to gratify the anxiety and fear of a community, reasonable restrictions and complicity with the provisions of boards of health may at least do no harm, and may impress a community with a calming assurance of safety.



PART THIRD

Care of the Sick and Convalescents

Introduction

It has been the endeavor, from ancient times to the present day, to find proper means to cure disease and otherwise to ameliorate the sufferings of afflicted mankind. Therefore it is certainly not surprising that rational, as well as curious, or even absurd, methods and doctrines have been offered in wild confusion, prompted by an enthusiasm that is often of very questionable wisdom. And sometimes purely imaginary, or even deceptive, theories are practised by honest physicians, as well as by pretending quacks and charlatans. Therefore, it seems advisable, before entering this special field of investigation, that some general remarks may be advanced to lead the reader directly into the path of reality. There is, perhaps, no country in which more medicines are consumed than in the United States, for the purpose of correcting all possible errors of diet, mode of living, and many trespassings against nature's laws. And while our nation may be justly considered as highly educated and wide awake, yet in no country are there so many people susceptible to being deceived and humbugged. Therefore, as a safeguard to the people, I shall give some important points in this connection, derived from an actual practise of medicine, which enables me to present facts for the benefit of readers.

One special point of interest deserves to be considered, namely, the fact that, as a rule, each doctor has a particular method of his own in combating

disease. Hence it is a rather curious fact that even a certain remedy does not serve all physicians alike; so that the action of a certain drug may be all that could be reasonably expected in one man's hand, while it seems rather ineffectual in another. This proves that the practise of medicine never will become a positive science, such as, for instance, geometry, chemistry, mechanical arts, etc., but that the healing art will ever depend more or less on the skill of the individual physician, all theories, in a measure, speculative and subject to personal fancy.

On this account, as has already been remarked, the safest plan is to interfere with nature as little as possible, and only when, according to our best judgment, assistance seems imperatively demanded. When following our vocation in such a spirit, the physician may deserve to be acknowledged as a real benefactor to humanity.

It is a great error to suppose that all ailments must be attacked by a variety of medicines, often of very questionable composition, and I found that several members of a certain family have been using divers remedies, each for a variety of real or imaginary ailments or diseases, expecting to derive great benefits from the exceptional virtues (?) of these often nasty and irrational compounds. On the contrary, such a constant and thoughtless use of medicines must finally exert a most deleterious influence on the organism, especially upon the stomach, the most willing, yet the most abused, organ of the body. By this means the physiological function of this organ is often so much interfered with that actual disease of the stomach results, through which the whole

body suffers; and insufficient nutrition, or mal-nutrition, and its disastrous consequences, is the outcome.

I have really pitied such slaves of medicines, or of unhealthful diet, and of such fruitless endeavor to correct wrong living with medicinal mixtures. A far more economical and commendable course would be to observe the principles laid down in detail in Part One of this work, to which the reader is referred; and the need of swallowing disagreeable and often injurious mixtures would be a thing of the past.

It is also an unnecessary and unwise habit to seek, for every slight or even imaginary ailment, the advice of a physician; for he will, if honest and sensible, prescribe an innocent mixture (*placebo*) merely to gratify individual anxiety. And it is often surprising to note the effects that colored, sweetened, or flavored waters will exert in curing (?) imaginary disease; so that such a person at least believes himself well. So attention is called to the fact that it is a most pernicious practise to attack at once a sudden constipation by purgatives; diarrhœa with astringents (so-called checking medicines); cough with lung balsams, cherry pectorals, or other cough mixtures; headaches with bromides, acetanilid mixtures or other antidotes; and so on, *ad infinitum*, for every possible or impossible ailment for each of which a remedy is recommended.

It would be very profitable, indeed, to adhere to the principle of the world-renowned physician, Dr. Boerhave, who left to the world the following pre-

scription, to insure the enjoyment at all times of the best of health:—

KEEP

The head cool;

The feet warm;

The bowels open; and

The doctor your distant friend!

Now, we will see, in the following discussion, that, while *medicines* are sometimes really indicated, we are always to consider them only for the purpose of *assisting* nature in its efforts to cure. But it requires more judgment on the part of the physician to know when medicines are not needed, than when their assistance is really indicated.

CHAPTER I

NATURE'S CURE

It is a cardinal principle that, by the inherent power of nature, all diseases are cured; and if she be only let alone, she manages her affairs in a most wonderful manner. All she needs is now and then a little gentle aid, and the providing of such should at all times be our modest aim.

To elucidate the foregoing with scientific abstractions would not comply with the spirit of this work, but the everyday observation and experience of persons, professional or not, abundantly prove that even very severe attacks of disease have subsided without artificial aid, and that those people who, on account of the least ailment, at once call for the physician, are most frequently afflicted, and pay the largest doctors' bills. We know, further, that, even in spite of the interference of some doctors, people will sometimes recover, and that the thoughtlessness, boldness, or experiments on the part of physicians have overcome, by the powers of nature, otherwise fatal results might have been the consequence. It is therefore apparent that the less frequently people call for professional aid, or meddle with nature, the better it will be for them, both physically and financially. The greatest benefit a doctor can render to mankind is in being a faithful adviser as to manner of living and conducting life's pilgrimage so as to enjoy good health, and thus to reach a ripe old age in happiness and contentment.

I have read in the *Medical Brief* of November, 1903, an item which was apparently intended as a joke (as many others are launched on the medical profession). It read as follows:—

“A student who had just taken leave of his preceptor to start out in the practise of medicine on his own responsibility, was called back, and the old physician said to him, ‘I want you to understand one thing—doctors kill more than they cure.’”

Comment is hardly necessary; but it is hoped that the young doctor has profited by the confession of his preceptor, and has practised his profession in such a manner as not to be guilty of murder, the secret of which it is the aim of this modest work to uncover.

There are, no doubt, some conditions and circumstances in which nature is inadequate, or unable to exert its full power, to restore health; and it is in such instances that the science and art of medicine, surgery, and obstetrics enter their great sphere of usefulness and become the competent assistants of nature. But the main principle of conservative doctors is at all times to let nature alone as much as possible, to watch and judge correctly any inability on her part, and then to come in with a modest share in restoring health, guarding, at all times, against rash and thoughtless interference and unnecessary indulgence in meddlesome druggery. When really necessary, the physician is to render prompt assistance, and this part constitutes his most difficult and rational task in any disease. The correct solving of that problem stamps the medical man as the greatest benefactor of the human race. The

idea embraced in the common term, "*conservatism*," will generally guide the doctor aright in exercising his real function.

It must not be forgotten that the power of nature to rectify any disturbance in its economy is, at all times, far superior to artificial means, and therefore we must be content to use our artificial aid gently and but occasionally. It is an undeniable fact that neither a physician nor a surgeon can cure, in the fullest meaning of the word, any disease, and that, if nature refuses to act, or lacks the power to accomplish such a task, the doctor will be powerless, and the patient must succumb. A few illustrations may be given as proof of the wonderful powers of nature. I was called to a child in my early career as a physician; made, according to my judgment, a correct diagnosis of the case, and selected what was supposed to be the most appropriate treatment. The next morning, I found the child playing with toys in its little bed, and was overjoyed at the great success I had achieved. But, to my surprise, the old grandmother, who had been nursing the child several days and nights, confessed to me, confidentially, in the hope that I would not expose her, that she had omitted to give any medicine at all, as, soon after my departure, she had fallen into a sound sleep, and, when awakening, found the child so much improved and cheerful that she thought it advisable not to give any medicine before my expected visit. Well, that I felt rather small need not be mentioned.

On another occasion I was called to see a patient who had been injured by clearing brush. Upon my arrival I learned that a blackberry twig had whipped

into one of his eyes, which, of course, produced pain and a certain degree of inflammation. On examining the eye I found that a thorn of the blackberry twig had performed a most beautiful iridectomy (removal of part of the iris, or membrane which forms the pupil), so that this man had both a natural and an artificial pupil; and as this operation had been done in the lower circle of that membrane, the patient could see straight forward as well as downward at the same time. I never saw a better operation from any eye-surgeon.

I was called into consultation in a case of labor, and, as the attendant obstetrician informed me that he had exerted all his knowledge and skill, I naturally supposed that the case would develop into a most formidable one. After examination, a consultation in an adjoining room took place; but, in the meantime, the parturient woman became seized with a severe labor pain, while her mother—who, by the way, had been somewhat instructed by me on previous occasions—having acted as nurse, did not hesitate to make an examination, and, finding everything favorable, brought the child to birth; but how we both felt, as learned in the profession, can not be described.

On another occasion, a very sick child, suffering from scarlet fever with accompanying functional heart disease and dropsy, my prognosis was so decidedly unfavorable that I informed the parents of my fear of a probable death. The father, who, by the way, was one of the most careless fellows I ever met, concluded that I had represented the case so gravely for the purpose of getting a large bill for my services, and preferred to let the child alone.

Instead of learning of its death, I received information two weeks later that it completely recovered.

A further illustration of nature's efficiency in curing itself is the fact that where, as often happens, especially in the country, a physician can not be instantly secured, and persons, as above cited, have not much faith in doctors' cure, anyway, and so trusted to good fortune and nature, the patients have recovered from disease as well as injury.

I could relate many such experiences, but those already presented may suffice to show what nature sometimes accomplishes.

These occurrences have given me instructive lessons, and have spurred me to the study of rational theories and remedies, of which study this modest work is the outcome.

An attempt to analyze the powers of nature to accomplish a cure probably never will be satisfactorily explained, and we have, for the present, to be content with studying results, and basing impartial opinion on demonstrated facts, which will emphasize the physiological truths that a *physician* or *surgeon* can *not cure*; that his great mission consists in earnest efforts to be a faithful *servant of nature*, and that he is never to consider himself as a *master*. In the capacity of assistant, he will be of inestimable value; as a professed master, he often commits irreparable damage, and may be guilty of death.

I would, therefore, advise, in any certain ailment or slight disease, first to give nature a chance; and, if the diagnosis is plain, to take advantage of the treatments which will be presented later on; but, for any serious conditions, the treatment should be conducted by a conservative doctor.

CHAPTER II

ASSISTANCE TO NATURE

We will now discuss briefly the various methods, systems, and doctrines which have been from times past to the present recommended. It is believed that it will be very necessary to learn the most important particulars about each, in order to appreciate such methods and principles pertaining to the healing art, and to become certainly aware that no one doctrine can be strictly and rigidly adhered to under all circumstances. The endeavor to do so by some enthusiasts has guided individuals to extreme radicalism. So it has happened that, while a certain method really possessed special merits, yet, through radical, unconditional use, it came into disrepute.

There is no doubt that each system or doctrine has special features of usefulness in certain conditions, and, if rational conservatism and impartial discretion were practised, great good to suffering humanity could be realized; but the best of judgment is required in applying correctly the proper method, or combination of methods, to meet the requirements of the special case in hand, instead of blindly following the precepts of enthusiasts of any system.

The following are the principal doctrines, as practised exclusively or in combination:—

Allopathy is the oldest system; and, therefore, its practitioners call themselves “regulars.” The principle consists in using measures antagonistic to dis-

ease. Hence anodynes are given for pain; purgatives for constipation; astringents for diarrhœa; antiphlogistics for inflammation; cold for fever; vermifuges for expelling worms; quinine for fever and malaria; etc., etc. Now, experience has proved the efficiency of such remedies to produce a decided effect, and, for that reason, all physicians, or persons following the healing art, have availed themselves, more or less, of the use of such medicines in urgent cases, for quick relief. But, to be just, it must be confessed that there is scarcely a member of that class who does not utilize any meritorious principle of other systems.

Eclecticism, as practised, has for its special feature the selection of certain remedies considered as specifics in their antagonistic action against diseases, or pronounced symptoms. As the eclectic physician is very particular in his selection of pure medicaments, if he is possessed of good judgment and has had a fair experience, he no doubt often renders excellent service.

Homeopathy, pure and simple, is founded on the principle of "*similia similibus curantur*," or "like will cure like." It would be inconsistent with the purpose of this work to enter into a minute explanation of the doctrine of Hahnemann, the founder of homeopathy, and we must restrict our remarks to giving some plain examples: Ipecac, in twenty-grain to thirty-grain doses, produces vomiting, and the symptoms are taken note of; now, when a person vomits, accompanied by such symptoms, ipecac will be the remedy, administered in very small doses, say one-twentieth of a grain, or even much less, as,

for instance, in the so-called potences, which reach up even to the thirties or higher. But this is certainly going to an extreme, as it is apparent that the best chemist in the world would be unable to find a trace of ipecac, but would find milk-sugar as the base of potencing. The same principles and rules hold good in fluid medicaments.

It is a fact that homeopaths, when needing a quick and decided impression, will use allopathic medication in the regular strength. While the allopath gives, now and then, a placebo (sham medicine), the homeopath may use potences, which will surely never do harm. In one respect, the homeopath is the safest doctor, as he never gives an overdose; neither will he injure a patient with poisonous drugs. I have often given medicine on homeopathic principles, such as has been noted with reference to ipecac, and have often secured decided benefit therefrom.

Hydrotherapy, a system pretending to use exclusively water, either cold or warm, externally or internally. This system has been made prominent by a Catholic priest named Kneipp, in Germany, where there was hardly a man who was so much consulted; but it is a fact that he did not confine his treatment to water alone. He used dietetic as well as medicinal means in conjunction with water treatment, and a great deal of his apparent success can safely be attributed to his personal station as priest; for it is well known to what degree superstition and faith have been instrumental for recovery.

However, there is no doubt that, in isolated, appropriate cases, the use of water will be of some serv-

ice; yet to use it indiscriminately is little short of absurdity.

Water has been used at all times in appropriate cases, amongst all medical men; and, when properly used in such cases, it is often beneficial. For instance, the ablution of the skin with cold water, or a cold bath in a high fever, is often followed by a remarkable reduction of temperature. A like effect is produced by a cold-pack, or application of ice water in a bladder to the head. Yet I would advise the reader not to neglect to seek the advice of a physician as to the adaptability or necessity of such a course.

Medication.—It is astonishing with what tenacity some people will cling to certain compounds or so-called remedies, in the erroneous belief that wonderful benefits will be derived from their use. Were it not for the illusory imagination, the real cures, if such could be proven, would dwindle into insignificance.

I know of several compounds which contain, besides water, medicinal ingredients which exert no special influence on the system; nevertheless, they are enthusiastically recommended from person to person as cure-alls. I have really felt sorry that it is almost impossible for the physician or druggist to convince the public of such facts.

I have often pitied such slaves of medicines, whose only aim seems to be to correct, with such compounds, their wrong modes of living and many indiscretions, while, no doubt, a far more prudent, and, at the same time, more economical, course would be the observing of the essentials of good health, as laid down in Part First of this book.

But it can not be questioned that now and then the administration of medicines is essential, as we will see when we come to discuss special ailments and diseases; but, in this connection, I only would warn the reader against unnecessary medication, and to use only such as are positively known not to exert the least deleterious effects on the organism; in other words, such medicines as will give nature a gentle aid.

Imagination.—The great influence caused by a perverted imagination, such as supposing oneself to be attacked by this or that ailment, must never be underrated, and no person, so much as the physician, has to confront such cases in his daily practise. It requires often the shrewdest tact of an honest and conscientious doctor to so conduct such cases that individuals may not become offended, and to spare the mortification of being told that they are simply laboring under the influence of imagination. If a physician is forced by special circumstances, for the true welfare of the patient he may give a really sham treatment; that is, he may give something that possesses no virtue whatever (called by the profession a placebo), until the patient is convinced that the disease is overcome. The fear or nervous excitement having subsided, and normal equilibrium having been restored, the physician has succeeded as well as possible.

There is no doubt that a feeling of slight inconvenience may be encouraged until it becomes an actual disease, by the power of imagination, through constant worry and magnifying of the real condition. Such occurrences are quite frequent, and, if the at-

tending physician fails, in the very commencement of such conditions, to check the emotional excitement, such disturbances may result in actual disease, even assuming a character of great severity, and sometimes ending in death, exhausting all vital energy, or may even end in insanity.

Superstition.—Amongst all nations and classes of people there exists more or less superstition, inherited from ancestors and enforced by certain traditions. But, in this connection, we have to deal only with superstition regarding diseases and their cure.

It is really surprising that a higher education has not been able to eradicate such illusions. We find many of this special class who believe in witchcraft, the power of evil spirits, and mysterious influences of natural phenomena in the healing of disease. The various means that superstitious people adopt for curing disease are sometimes really amusing. It is surprising how people, especially those from whom something more rational would be expected, will believe in such cures as, for instance, a potato in the pocket as a safeguard against rheumatism; a burnt rag, powdered, to cure fever; the application of the so-called madstone to prevent hydrophobia; to drop the blood from the nose, mouth, or a wound on straw placed crosswise to stop hemorrhage, and many other such fallacies too numerous to be mentioned in this brief discussion.

Many physicians and sensible laymen have to confront superstitious people, and priests and ministers are called to give advice and render relief in such supposed misfortunes as follow an imaginary visit by an evil spirit. It is often a very difficult

task to overcome the influences of superstition so as to convince its victims of the absurdity of such belief. This must be done in a kind but firm manner, being at all times mindful that wrong rearing is the principal cause of cultivation and perpetuation of such irrational illusions. Hence we must deal with conditions as we find them, and not rigidly censure such unfortunate individuals. By careful conduct, sympathetic, kind, and honest explanation, our cure will result in a successful conversion, at least so far as superstition is concerned.

Suggestion.—It is believed by some enthusiastic advocates that all diseases may be finally cured by suggestion, and, through such a faith, has sprung up the so-called Christian Science, parading for the sake of confirming and strengthening belief in their theory of the Christian religion—the curing of disease by profound faith and spiritual power, as Christ did. And the Bible records many such wonderful deeds. While such wonders are beyond our modest conception, depending only on firm belief, we enter now the field of the natural philosopher, and prove beyond a doubt the rationality and feasibility of suggestion, plain and simple, as a factor in curing disease, and sustain it by undeniable results achieved.

A casual observer has abundant opportunity to witness the practical demonstration of this method, and to be convinced that, after all medicines have failed, pains are banished, sleep produced, great nervous excitements are calmed, or high fever subsides, and all by a magnetically (?) favored person's saying: "I think you will feel easy now, your pains will be gone, sure; you will be relieved of

your fever." These efforts may be enforced by extemporaneously moving the hands over parts especially affected, which will increase the influence of such suggestions.

The above remarks should not be construed as being a method for deception or humbug just because unscrupulous persons have indiscriminately practised suggestion (faith cure) for the sake of pecuniary gain, and to gratify superstitious individuals; for, when rationally practised in appropriate cases, it will prove of inestimable value. And the fact that not the least harm is inflicted by this method commends it to very favorable consideration.

It is, of course, an illusion to suppose that all diseases could thus be banished and this method could replace the use of medicine or the aid of a physician, surgeon, or obstetrician; but any reasoning person will, without much difficulty, make a proper discrimination in the use of such means, and thus be in proper position to select the right course to be pursued in each particular case.

But to achieve any degree of success in the suggestive method of curing disease, two principal factors are indispensable—namely, the party administering it must go forward with the utmost confidence and earnestness of purpose, and the recipient must possess the greatest confidence in the administering person in order to receive benefit through the wisdom and superior power, as well as the skill, of the administrator. The ability of a person possessed of magnetic power to influence the faith of others in curing disease acts on the mind of the sufferer, so to say, as a double sword, operating in both direc-

tions, and, in such instances, exerts the most beneficial influence.

It is also almost certain that, when individuals firmly believe that they must shortly die, that pain will kill them, that they can not recover from a disease, that a certain medicine will have no effect, that a certain doctor never could cure them, that an operation will prove fatal, that there is not the least hope for them, etc., such suppositions must exert the most deleterious influence on the whole organism, inspired by the perverted action of the brain. If such thoughts are firmly engrafted, neither suggestion, nor medical skill, nor natural power will be of much avail; even surgery is deprived of the best means and indispensable auxiliary to success.

The utmost confidence and trustworthiness in a doctor, as to what he says, must be felt. "The medicine prescribed will help; he has cured so many, and he will cure me; he fully understands my condition," is not only a great consolation, but is the best aid in accomplishing a cure. There should never be in the mind of a patient any doubt as to final recovery, but he should accept any treatment with perfect resignation and hope; otherwise, a doctor would better be changed at once, for obvious reasons.

There is also another fact worthy of mention, namely, that the thought of disease will, in many individuals, produce it; so, also, the thought of becoming soon an aged, senile person, and of soon passing away, will shorten longevity materially; while, on the other hand, the suggestion of possessing all the elements necessary to good health and a long life will often realize such firm convictions.

Hypnotism.—It is surprising that the medical profession has been rather slow to inquire scientifically into the merits of artificially producing sleep, as well as insensibility (anesthesia) to pain and other influences, and that such practise has been left to charlatans, showmen, and other humbugs, launching it as a great *mystic* power, enveloped in profound secrecy.

The different methods of inducing sleep as a curative agent (which it really is) seem very simple. By observing certain instructions, and gaining some practise, most people will be able to produce any phenomena of hypnotism, as the art does not require a specialist. I have grouped purposely imagination, superstition, suggestion, and hypnotism close together, because each forms a field of investigation related to the others, but the methods and results are somewhat different. Yet the aim remains the same—that of curing disease without the aid of any other art or the administration of medicines. The wonders of prophets, witches, witchcrafts, and divine healers are now scientifically explored, and to trace all such peculiar wonders to a physical and rational origin is a suggestive power.

As to hypnotism, Santanelli first recognized the great influence of imagination, and advanced the theory that everything material possesses a radiating (?) atmosphere, which operates magnetically.

Mesmer, a Vienna physician, a century ago, laid the real foundation of the knowledge of the power of animal magnetism in treating disease, and his method is therefore called “Mesmerism.” This method was introduced into England about the year

1841 by Dr. Braid, who became very much interested in the subject. By carefully fixing the eyes upon a given subject, a certain sleeping state was produced, which was called "hypnotic phenomena." But, as far as the practise of medicine is concerned, the greatest achievements have been made by Professor Charcot, of Paris, who directed universal attention to a peculiar physical state, a combination of hysteria and epilepsy, which have proved really wonderful phenomena, and his teachings and demonstrations have entered into many medical colleges and universities in all parts of the world. The fact that animal magnetism, as the foundation of hypnotism, has now many advocates, is no surprise; so that three principal factions are recognized, and special instructions are presented, and designated according to their originators, namely, Mesmerism, Bernheimism, and Charcotism (or Charcot hypnotism).

The simplest and easiest method of inducing hypnotic sleep is that of Mesmer, which is practised at most public exhibitions. A second may be called the mental method; and a third constitutes the fascinating method. But all prominent experts, such as Charcot, Bernheim, Braid, and others, have used these methods either singly or combined, as seemed best adapted to the case in hand, as well as the objects to be attained.

But, after all, the simplest method will remain to be that which was practised by Mesmer (Mesmerism), and may be described as follows: Concentrate the mind of the individual upon a certain object. Require the person to sit in a chair, hand him

a certain article, probably a piece of coin, to gaze at uninterruptedly and exclusively, so that the mind is centralized and directed only to such a substance of which the practical hypnotist is sure. Now approach him and suggest that his eyelids are getting constantly heavier, so that it is an impossibility to keep them open. Now let him close his eyes firmly while the hypnotist makes certain passes with the hand from head to knee. Now suggest that his eyelids are firmly closed together and it is impossible for him to open them. For proof, let him try hard, but he will finally be entirely unable to do so. Now place his hands upon his knees and tell him that he can not remove them, and that there is no use of his trying. Continue to make passes in selected directions, and suggest that he will sleep now, and that he can not think of anything else; that he must remain in a deep and profound sleep until you wake him up by loudly clapping your hands close to his face.

It is also a curious fact that, if a certain subject is susceptible to hypnotic influences, he will sit rigid before you, in a complete state of hypnotism, ready to execute any suggestion you may offer. In this way the most surprising manipulations and movements are executed while the subject is in a deep sleep.

I have witnessed instances, however, when a very skilled hypnotic specialist, notwithstanding repeated efforts, was unable to induce any hypnotic phenomenon. And this proves that certain subjects are entirely unsusceptible to hypnotic influences; also that all efforts to hypnotize a person who is

determined not to be hypnotized will prove fruitless. Yet now and then, by some clever tricks and patience, some very difficult subjects are brought into a hypnotic state, in which all are alike under the entire control of the hypnotist.

The method of awakening is very easy, and consists in clapping the hands quickly and loudly, saying, "Wake up," or, "All right," or, "Open your eyes."

Some specialists take advantage of their skill to sell their method, which they claim as the best and most practical, at enormous prices; yet if a person will very closely watch the hypnotist in his exhibitions, all clever tricks may be detected. And if a physician will take a special interest in hypnotism, with due patience he may soon acquire the art, and will find many instances in his practise in which it may be very beneficial in its application, often being efficient in obliterating nervous excitability or restlessness.

The first and only case in which I ever tried hypnotism was rather unique. The case was that of a child who was a great annoyance to her sick grandmother, because of her anxiety. All night she would keep asking, "Grandma, do you feel better now?" etc. As she was a healthy child, I thought it imprudent to administer morphine or any such anodyne, so I concluded to hypnotize the child. I approached her very kindly, saying, "Look at this piece of money." Then I suggested, "O, you are going to sleep now; just shut your eyes; I know you want to sleep," when, almost immediately, she fell asleep. The next morning she awoke in a natural manner.

There is one special point to which I wish to refer, and that is, if you want to induce hypnotic sleep for any ailment, or to allay a certain nervous excitement in a person, or to produce a certain anesthesia (insensibility to pain), never make known your intention; for if a person is aware of your design, you are apt to fail in your effort.

Owing to such peculiarities, it is not at all surprising that many fail to induce a hypnotic state; but with patience and interest in the art they may finally succeed.

CHAPTER III

COMMON FORMS OF DISEASES

PRELIMINARY REMARKS

Before discussing special forms of diseases and their proper management, we will first consider some principles applicable to all diseases, without which success in any case will be impossible.

Paramount importance must be attached to the removal of exciting and determining causes of disease; yet, very much to be regretted, this is often but partially successful, or even impossible. In Part Second of this work we have dwelt at length on all probable and improbable causes, and, at this point, it is the aim to again urge the reader to leave nothing undone to find the real causes of disease, in order to enable nature to effect a cure, and to enable the attendant physician, or laymen, as the case may be, fully to perform the twofold duty of removing the cause and rendering the necessary scientific aid for nature to accomplish a cure.

A few illustrations may confirm the importance of finding and removing the cause whenever possible. If, for instance, headache is caused by constipation, remove the constipation and the headache will disappear. Diarrhœa, if caused by irritating masses in the bowels, will cease of itself if such masses are expelled. If palpitation of the heart or defective vision is caused by the use of tobacco, don't treat heart or eyes, but quit that tobacco habit, and if those organs have not been previously too much damaged they will return to normal activity. If vomiting is

caused by excessive use of alcoholic stimulants, quit the alcohol habit, and the stomach, after being emptied through nature's efforts will willingly resume its proper work. Even corns, produced by tight footwear, require, as the rational remedy, more commodious shoes; then the corns will recede and not trouble any more, or, when removed, will not return, as the cause is removed.

But these illustrations will suffice, and it is hoped the reader will profit by them and be led to apply rational reasoning as to cause and effect in any disorder or disease which may occur, in order to secure successful treatment.

It will be very profitable now to discuss such ailments and diseases as are of almost daily occurrence, and do not necessarily require an expert to make a correct diagnosis. The treatments given are safe, and can be administered by any intelligent person, and will be accompanied by satisfactory results if used as directed.

But right here I wish to remark that I have found, even in medical books, prescriptions for children made out with such carelessness that if given to a child regardless of age (as no special age was given), very serious consequences would often follow.

Some physicians believe that children can take more medicine in proportion to age than adults; but I can not agree with such belief. The safest way is to always accompany the prescription with the age of the child for which it is intended.

To calculate the doses for children in comparison with adults, take, for instance, rhubarb; an adult may take twenty grains, a person nineteen years old

nineteen grains, and so on, to a child one year old, one grain. The same holds good as to fluid medicines. One teaspoonful is sixty drops; now, if this is the dose of a given medicine for an adult, adjust it so that you allow for each year of age three drops, up to twenty years, because three times twenty equal sixty.

Loss of Appetite.—It is often rather annoying to lose one's appetite, but the thoughtless habit of using various mixtures for the purpose of producing a feeling of hunger will always prove a disappointment; because of the fact that loss of appetite may often be very beneficial, especially in some fevers, and often certain conditions are the causes of such loss. Therefore, we must find out what conditions are accountable for want of appetite and remove the causes, if possible, rather than to attack the stomach with stomach bitters, pepsins, or other preparations. A most simple method may first be tried, consisting in gargling the mouth with salt water quite often, followed by drinking a small quantity of water, and moderate exercise. This will serve the double purpose of cleansing the mouth and the stomach, thereby enabling that organ to fully unload itself. During the abstinence from eating, the stomach will become thoroughly cleaned out, a natural appetite will return.

Another cause is the overloading of the stomach, or too frequent meals, so that digestion is greatly interfered with. In such case loss of appetite must result, because the stomach is unable to perform its proper function. Therefore, the golden rule should be obeyed, not to eat too much nor too frequently,

and never take a meal except when feeling really hungry. Then stomach bitters will not be desired for that trouble.

Constipation.—This rather common condition may be caused by inactivity of the bowels, wrong diet, or morbid digestion. It is found most frequently amongst adult females, owing to their peculiar mode of life, complexity of the pelvic organs, and special habits. Constipation is also the cause of many specific troubles, frequently a congested state, especially of the lower bowel, producing fissures, piles, and, more rarely, prolapse of the anal portion of that organ. *Piles* are nothing else than sacculated, dilated veins of the rectum and anus; yet, if the bowels were not allowed to become constipated, piles would be of very rare occurrence. When piles do really exist, however, the first effective measure consists in relieving constipation, and then keeping the bowels in a rather loose state. One of the best combinations for that purpose is equal parts (by bulk) of pure cream of tartar and flour of sulphur, which is best mixed with sorghum molasses, but, if desired, may be diluted with water. The dose of this powder is one teaspoonful three or four times a day, after meals, until the effect is realized, when once or twice a day will be sufficient to merely keep a loose state of the bowels until a cure is accomplished. Then, by preventing a constipated condition of the bowels, piles will rarely ever return. If above powder is distasteful, the pill recommended in "Constipation" may be used. If piles are not ulcerated or sloughing, the following treatment will be found very effective: Morning and night, as

well as after every evacuation of the bowels, bathe the parts well with hot water. After drying, press downward, to bring the piles to better exposure, and then apply the following ointment well over all protruding piles, after every evacuation of the bowels and at night:—

Powdered nut-gall, $2\frac{1}{2}$ drachms.

Powdered opium, 10 grains.

Vaseline, 1 ounce.

Fissure of the anus and fistula of the lower bowel must be treated by a competent surgeon.

It is a common custom to treat constipation with purgatives or constant injections, moderate or very large quantities of fluid being forced into the lower bowel. The former will have a tendency to obtund the nervous activity of the bowels, so that ever-increasing quantities must be used to be effective, and the frequent large injections will finally produce relaxation and atony of the lower bowel; hence there will be increased inability to evacuate by natural power.

It is also a bad habit, in case of a tendency to constipation, to make an effort to assist nature during the time at stool by voluntary pressing down to assist the natural involuntary power. This is also a fruitful cause of piles, and sometimes prolapse of the rectum. The remedy is apparent—allow sufficient time for that function and avoid pressing down too much.

If the cause of constipation is traced to diet, a change will be necessary. Plenty of fruit and vegetables should be eaten, as well as meat soups and whole-wheat bread; but any other preparation made

of flour must be avoided. However, should a more prompt action seem demanded, in order to relieve the most distressing inconveniences, the following is a good prescription:—

Saturated solution of epsom salts, 4 ounces.

Fluid extract of cascara sagrada, 2 drachms.

Take one tablespoonful every four hours until it operates. If the lower bowel is too much filled by hardened stools, use an injection, consisting as follows:—

Warm water, 1 pint.

Table salt, 1 tablespoonful.

(To which may be added some olive oil.)

Use as often as needed, until bowels are free, and then discontinue and trust to nature.

An excellent tonic laxative to secure regularity of the bowels, especially adapted to females, consists of:—

Powdered Socotrine aloes, 1 drachm.

Powdered rhubarb, 1 drachm.

Powdered ipecac, $\frac{1}{2}$ drachm.

Fluid extract henbane, 1 drachm.

Tincture nux vomica, $\frac{1}{2}$ drachm.

Make to a pill mass, divide into sixty parts, and put in No. 4 capsules. Take one three times a day until bowels are regulated, and then take one less frequently, merely to insure continued easy stools.

Diarrhæa.—This condition is usually occasioned by accumulated irritating masses in the bowels, and is generally a natural effort to throw off such substances; hence it is, in many instances, salutary, and, as a good rule, it ought not to be interfered with in

the beginning. For this reason it is even a domestic custom to aid nature in administering either castor oil or cream of tartar until the bowels are cleaned out. But this treatment should not be indiscriminately practised, and only when really necessary. But to give astringents or opiates to check every diarrhœa is the worst possible method.

Now, if the trouble does not disappear in a reasonable length of time, or the stools become loaded with glairy mucus, tinted perhaps with blood, and more or less straining at stool takes place, the disorder is transformed, in the adult, to flux (dysentery), and, in children, to summer complaint (cholera infantum, *entero-colitis*).

Simple diarrhœa, as a rule, should be, as has been mentioned, rather left to nature, and when the causes are removed it will cease. By confining the diet to preparations from flour such as porridge and burnt flour soups and eggs, the trouble will subside in due time.

Should it be desirable to assist nature, if a mere watery stool continues, and pain in the bowels is tormenting, use the following:—

Paregoric, tincture catechu, tincture cinnamon,
each 1 ounce.

Syrup of ginger, 1 ounce.

Take one teaspoonful every two or three hours until the trouble subsides.

Flux (Dysentery).—This disease is often very stubborn if not properly treated in the beginning. I would call attention to the important rule that, whenever diarrhœa persists, and the stool changes to a mucous, bloody discharge, accompanied by fre-

quent desires to go to stool under severe straining (*tenesmus*), flux is at hand. The best remedy is:—

Cream of tartar, 1 ounce.

Divide in eight powders and give one with a tablespoonful of peppermint water every four hours until stools pass real watery, without mucus, blood, or straining at stool, and then give the following:—

Quinine sulphate, $\frac{1}{2}$ drachm.

Bismuth subnitrate, 2 drachms.

Divide into fifteen powders and give one every four hours until movements of bowels become natural. The old method of giving opium or astringents is a wrong practise.

Summer Complaint (Cholera Infantum).—This disease of childhood usually occurs in summer, especially when the temperature is very high, and shows itself by very frequent mucous discharges, often mixed with blood and accompanied by straining at stool.

The best treatment is to keep the child very lightly clothed, and apply to the abdomen a flannel binder sprinkled with a little whisky or alcohol; give milk, soft-boiled egg, or roasted flour soup, with the addition of a little brandy, five to thirty drops, according to the age of the child, together with the following:—

Bismuth subnitrate, 2 drachms.

Tincture of cinnamon, 1 drachm.

Fennel water, 5 drachms.

Simple syrup, 1 ounce.

One teaspoonful every two or three hours, for a child one year old (older children in proportion

to their age) until relieved. However, should this treatment fail, it is best to consult a physician.

Cough.—A certain irritation or inflammation of the air passages and lungs produces cough. First, the mucous membranes are red and swollen; finally, an abundance of secretion accumulates, which must be expelled by efforts of coughing. But cough is not strictly a disease; it is merely the symptom of a certain special disorder, and in most cases it points to the respiratory tract; and, if the discharged mucus is streaked with dark blood, it is a certain (pathognomonic) sign of pneumonia. Cough may be also symptomatic or reflex, from various causes which it would be rather useless to describe at this place.

As a general rule, it is probably best to let cough take its own course, and leave the matter to nature. Keep away any exciting causes, and everything may turn out satisfactorily. Should a medicine be needed, however, the best cough medicine for general use is the following mixture:—

Syrup wild cherry, 2 ounces.

Syrup of ipecac, $\frac{1}{2}$ ounce.

Simple syrup, $\frac{1}{2}$ ounce.

Anise water, 1 ounce.

For adults, one teaspoonful every two hours; children according to age, as has been directed.

If cough is very annoying, give:—

Bromide of potassium, 3 drachms.

Peppermint water, 1 ounce.

Syrup, 1 ounce.

For adults, one teaspoonful every two, three, or four hours.

A good home remedy also is:—

Honey and olive oil, each 1 ounce.

One teaspoonful as often as necessary.

When a cough is persistent, and pain in either the windpipe, trachea (bronchitis), or in one or both lungs (pneumonia), it is proof that these organs are affected; but, as we do not possess any special specific for either of these diseases, we may also profitably use the cough medicines recommended, and keep the chest covered with flannel or cotton, so as to secure an equal temperature of chest walls, avoiding drafts. Above all things, provide fresh air by ventilation of the apartment, and, if appetite permits, a nourishing diet, with, perhaps, a good malt extract.

In the course of time, however, should those diseases not yield to such treatment, or if serious complications arise and distressing or dangerous symptoms present themselves, the best counsel is to seek medical advice.

Colic.—Pronounced by pain (cramps) in the bowels, caused either by accumulation of gases, gallstones, or irritable masses in the stomach and bowels, or other organ. It must be the endeavor to find out the cause, try to remove it, and, if impossible, consult a physician instead of resorting to opiates, morphine, or other anodynes, to subdue pain.

A good remedy which will never do any harm is as follows:—

Cream of tartar, $\frac{1}{2}$ ounce.

Syrup of ginger, 3 ounces.

Fennel water, 1 ounce.

Take two teaspoonfuls every hour or two, supported by an injection of salt water, until bowels move freely.

Cholera Morbus.—This affection occurs rather frequently during hot weather in summer, and is characterized by severe vomiting and purging, but if attended to right in the beginning it is a disease very amenable to treatment. A weak mustard plaster should be applied to the stomach, but avoid blistering; then lay a warm cloth over the bowels, and give the following, which is as near a specific as any remedy could be:—

Carbonate of magnesia, 1 drachm.

Aromatic spirits of ammonia, $1\frac{1}{2}$ drachms.

Peppermint water, 4 ounces.

Give a teaspoonful every twenty minutes until relieved.

If purging is severe, add to above one-half ounce of paregoric.

Headache.—This often annoying trouble must be considered as a mere symptom of some disorder, because it may be caused by congestion of the brain or constipation of the bowels; and even anger, worry, or unusual nervous excitement may produce it. Therefore, it is a very bad habit to resort at once to so-called headache powders, consisting mostly of acetanilid, caffeine, or morphine, which may injure the system instead of benefiting it.

If there is much heat in the head, a cloth wrung out of cold water, or a bladder half-filled with water, to which is added a piece of ice, may be applied until the heat subsides. If caused by constipation, relieve it, as has been described under that heading; if from grief or worry, take rest and secure tranquillity of the mind, and give as follows:—

Bromide of potassium, 2 drachms.

Camphor water, 2 ounces.

Peppermint water, 2 ounces.

Give one tablespoonful every four hours until relieved. If the stomach is at fault, the best remedy is an emetic:—

Powdered ipecac, 1 drachm.

Divide in three parts and take one every ten minutes, with hot water, until vomiting takes place.

Never attack headache with so-called headache powders of unknown composition, and, if the case seems serious, it is better to consult a physician.

Indigestion (Dyspepsia).—Disturbances of the digestive function are the most frequent causes of ill health, because on that function depends the sustenance of life itself, hence of the whole organism. The name “dyspepsia” is an unfortunate one, having suggested the necessity of giving pepsin, which, by the way, has not cured a single patient for me. For the reason that these troubles are so prevalent in this country, they should be given special and careful consideration. To study the history and causes of a given case is a paramount necessity, so that everything may be removed which has a tendency to increase the actual disease. So we have to investigate the personal diet, and, if it does not comply with the kinds of food enumerated in Part First of this work, change it. If highly seasoned foods, spices, hot bread, pies, puddings, pastries, ice-cold or hot drinks, excessive use of liquors, overloading of the stomach, late meals, or the use of large quantities of salt or vinegar has been indulged in, cast them aside. By

the way, it is really astonishing that even some *members of the profession* are guilty of such indiscretions, while they certainly ought to know their injurious influences, as they have to treat patients whose cases require the prohibition of all such substances and practises to insure recovery.

I have rarely ever failed to cure such cases, provided the patient was willing to adhere strictly to all instructions. And the method is so simple that in most cases any intelligent person can treat himself, according to the principles now to be described.

After inquiring into the condition of the bowels, kidneys, and other organs, so as to be assured of their normal functional activity, I demand of a patient to abstain, as a rule, from any food whatever for two or three days, excepting wheat bran and warm (not hot) water, to which may be added a small quantity of salt. By this means the stomach is thoroughly cleansed, and the stool transformed into a loose state, so that all irritating substances are removed from the whole alimentary tract. It is also a good practise, from the beginning, to take a glass of cold water every morning, and this can be done at any time of the day when thirsty.

If it appears that the stomach contains too much acid, shown by sour belching (eructation), a glass of pure water in which has been dissolved a half-teaspoonful of baking soda (bicarbonate of soda) may be taken to neutralize the overacidity of the stomach. If a bitter taste supervenes, a teaspoonful of epsom salts in half a glass of water at various intervals (every four or six hours) may be taken, which will prevent any recurrent flow of bile, thus

causing it to remain in its proper channel, the bowels. Before any food is taken, the mouth should be washed out with strong salt water. After two or three days, according to circumstances, the diet may be changed so as to consist of whole wheat, or, better, graham bread (bread in which all the bran is retained), milk, and water, and occasionally small quantities of meat and meat soups (mutton preferred, but hog meat avoided); and finally, but very carefully, the more common articles of diet. But one rule must be strictly observed, and that is never to eat unless a decided feeling of hunger exists.

Sometimes it is advisable to take a tonic bitters for the stomach. The following formula and mode of preparing it is a most useful preparation, which I have used successfully for years:—

Gentian root, coarsely powdered, 2 ounces.

Orange peel, coarsely powdered, $1\frac{1}{2}$ ounces.

Anise seed, finely powdered, 1 ounce.

Caraway seed, finely powdered, $\frac{1}{2}$ ounce.

Coriander seed, finely powdered, $\frac{1}{4}$ ounce.

Take a glass funnel holding one quart and put in the bottom, dipping well into the spout, some cotton. Now put the above powder in the funnel, and pour gradually upon the powder a mixture of half alcohol and half water, so that the fluid from the spout drops slowly into a pint bottle, until the fluid comes out clear at the last, which is a sign that all the strength of the powder is exhausted.

This makes the finest bitter fluid extract. Take one-half to one teaspoonful in water before each meal. If a regular stomach bitters is desired, take:—

Bitter extract as above described, 2 tablespoonfuls.

Alcohol, 1 pint (or more, if preferred).

Syrup, $\frac{1}{2}$ pint.

Peppermint water, $\frac{1}{2}$ pint.

Water, 1 pint.

Mix, and let it stand twelve hours, and it is ready for use. Dose, one-half wineglassful three times a day before meals.

By adhering to these instructions, the happy results will be surprising, besides the satisfaction of being cured very effectually, with little expense.

Should serious complications appear, which may rarely happen, it would perhaps be better to seek the advice of a rational, reasoning, and conservative physician, one who understands such conditions thoroughly and aims to comply with the demands of nature; one who does not pretend to establish artificial digestion by pepsins or predigested foods, a course which has brought, and ever will bring, disappointment to patients as well as physicians; because all such remedies are unable to remove the cause, and so may only give temporary relief.

Appendicitis.—This supposed new disease is simply an old disease under a new name, and has presented a wide field for speculation. It is caused by accumulation of matters in the blind bowel, and a certain degree of inflammation of the appendix, which is on the upper end of that gut, attached as a blind lappel hanging outside the bowel.

As the organ is supposed not to be positively necessary, surgeons have been inspired to cut it off, as is done with other organs which can be removed apparently with no immediate damage to the patient. Yet there are many very competent, though conserv-

ative, physicians and surgeons who are, as a rule, opposed to such an operation, in which I fully coincide.

Now if a kind of sharp pain on the right side of the abdomen, about two inches under the small (false) rib, is experienced, there may be cause to fear such condition, and the case should be attended to, especially if constipation is also present. The following will be found as the best means to cure such condition, without fear of doing the least injury, and without the use of the knife:—

Cream of tartar, 1 ounce.

Take of it, one teaspoonful every three hours until bowels move freely and pain subsides. Or—

Castor oil, olive oil, and molasses, equal parts.

Take a tablespoonful every two hours until it operates freely.

There is no doubt but that, in very rare instances, the appendix may be so diseased as to demand its removal; but it requires the most conservative surgeon to know when such an operation is imperatively demanded, as through the bold and unnecessary removal of that part of the human anatomy many lives have been sacrificed.

Rheumatism.—This affection is so well known that it requires but little description; but, in order to treat the subject intelligently, we must consider it under three heads: (1) Acute articular (where the joints are affected); (2) acute muscular (where the muscles are affected), and (3) chronic rheumatism. The last mentioned condition may be the consequence of either or both of the former.

The treatment of the acute varieties does not differ very materially. The following application will be found very useful:—

Bicarbonate of soda (baking soda), 2 ounces.

Water (either cold or warm, as preferred), 1 pint.

Saturate a cloth and lay it on the parts affected, renewing it occasionally until inflammatory symptoms subside.

Internally the following is a good prescription:—

Salicylic acid, 3 drachms.

Bicarbonate of soda, $1\frac{1}{2}$ drachms.

Lemon syrup, 1 ounce.

Water, 2 ounces.

One teaspoonful every two hours until pain subsides.

Avoid anything sour and keep bowels open with solutions of epsom salts or by drinking freely of mineral water.

The following prescription is much used for muscular rheumatism by some mail-order specialists, and is said to be very effective, very cheap, and contains no injurious ingredients:—

Ammonium chloride, 2 drachms.

Simple syrup, 1 ounce.

Mix. A teaspoonful three or four times a day. For chronic rheumatism I have found nothing better than to apply to the affected parts—

Bicarbonate of soda, 2 drachms.

Water and whisky, each 2 ounces.

Use three or four times and keep painful parts constantly enveloped in cotton or wool.

For chronic rheumatism, I found that dry

warmth to the affected joint, or part, avoiding vinegar in the diet as much as possible, is as good as any other treatment. But the following prescription is sometimes effective:—

Iodide of potassium, 2 drachms.

Syrup of sarsaparilla, 4 ounces.

Take one teaspoonful three or four times a day.

It is also advisable to procure some blue litmus paper, and dip a piece into the urine every morning, and if it becomes decidedly red, there is too much acid in the blood, for which may be taken:—

Bicarbonate of soda, $\frac{1}{2}$ ounce.

Peppermint water, 4 ounces.

One-half tablespoonful every four hours, until blue paper is scarcely discolored, as a sign that the acid is neutralized.

Catarrh.—This name has been greatly abused, especially by quacks and medicine vendors, who claim that all diseases are caused by catarrh, so that one patent compound will be a cure-all; yet intelligent people can see the absurdity of such a fake idea. Catarrh is simply the second stage of any inflammation of the mucous membranes of the air passages, and other organs, as the nose, mouth, windpipe, and lungs, stomach, bowels, etc., and shows itself by a certain dryness of these membranes, while moisture should prevail in order to keep them in proper condition. It is a fact that any disturbance of the system, such as headache, sneezing, coughing, or a certain degree of fever, etc., is attributed to catarrh, while these symptoms generally are due to other diseases, which, of course, should receive special attention and proper treatment.

The following rather empyric treatment will often be found very effective:—

Quinine, $\frac{1}{2}$ drachm.

Fluid extract cascara sagrada, 80 drops.

Camphor water, simple syrup, each 1 ounce.

Dose, one teaspoonful three times a day.

If the nose be dry and secretions hardened, wrap cotton on a stick and swab the nose with glycerine and water, to which may be added a little borax, as often as necessary.

Asthma.—This very annoying condition consists either of a rigidity of the air cells, through which the lungs are unable to entirely expel the air to be exchanged for fresh air, or where, as in so-called hay asthma, there is an oversensibility of the lungs to impressions of certain odors in the air, which produces paroxysms of suffocation. If the disease is not too chronic, it can be cured; but the paroxysms may be relieved by the following powder, of which a little should be burned and inhaled when attacks come on:—

Powdered lobelia.

Powdered stramonium leaves.

Powdered nitrate of potash (saltpeter).

Powdered black tea.

Each 2 ounces.

Internally, may be taken:—

Iodide of ammonium, 2 drachms.

Fluid extract of grindelia robusta, 4 drachms.

Fluid extract of liquorice root, 4 drachms.

Tincture of lobelia, 2 drachms.

Tincture of belladonna, 2 drachms.

Syrup of tolu to make 4 ounces.

Take a teaspoonful three times a day and in each paroxysm.

Poison-Vine Eruption.—The common poison-vine (*Rhus toxicodendron*), a species of so-called swamp sumach, and one or two other plants rarely, cause, by contact, in some persons, an inflamed vesicular eruption, often of considerable severity. The hands and face are the most frequently affected, but the body and limbs may also be attacked. The duration of the attack, in severe cases, may be from one to two weeks; but it is often quite limited and runs a rather shorter course.

In the *treatment* of this annoying but not dangerous affliction, a great relief, as well as a shortening of its course and reducing of the inflammation, may be effected by the early application of the following:—

Sugar of lead, 1 drachm.

Water, 1 pint.

Apply freely with a camel's-hair brush, every hour or so, avoiding, however, opened vesicles (blisters) over the inflamed surface.

Another good remedy is the application of fluid extract of Virginia snakeroot (*Serpentaria*). It seems to kill it at once.

A saturated solution of bicarbonate of soda (pure baking soda) applied frequently often gives prompt relief by neutralizing any acid which, according to Professor Maish, is contained in poison-vine, called toxicodendric acid.

Burns and Scalds.—In such accidents as those where half of the body is burned or scalded, arrest

of the function of the skin takes place, and death will result. Collapse comes on by the terrible shock to the nervous system. The body becomes cold, the pulse very low, and thirst is often excessive. Suffering is often, in a few hours, lost in apathy or prostration. If the burns or scalds are not so extensive, proper *treatment* will be successful. If the patient is much prostrated, wine or whisky should be given in small, often-repeated doses; and, in case of severe pain, an anodyne (which, however, should be prescribed by a physician) may be necessary.

For local *treatment* the old remedy of equal parts of oil and lime water (linseed oil is probably best), applied on cotton wool, so as to exclude the air from the surface, is very effective. A good protection is also a solution of gum arabic, or tragacanth, to which is added a little olive or castor oil. If nothing better is at hand, dusting with finely powdered starch and covering with a cloth saturated with molasses is a good and ready substitute. Baking soda (bicarbonate of soda) in a saturated solution has been recommended, but I found it only effectual where the skin was merely inflamed and not much abrasion or severe blistering had taken place. The principal object is to keep the air excluded from a burned or scalded surface.

Tapeworm.—Although there are two principal varieties, the symptoms of their presence and the appropriate treatment are the same in either case; hence a differentiation has no clinical value. Tapeworms are formed of flat segments (joints), often several hundred in number, connected with a very small head by a slender neck. Each segment has male and

female organs (hermaphrodite), and as those of the tail end mature, they are detached and cast off with the stools. Some patients pass several such fragments (joints) every day. The whole length is from ten to thirty feet, but sometimes longer.

The *symptoms* may not be very determinate, and the only positive proof is the finding of fragments in the discharges from the bowels, to which, if suspicion is aroused, special attention must be given to be sure of their presence.

For the *treatment*, or, rather, for the purpose of *expelling* tapeworms, a variety of remedies has been used, and often sold at *exorbitant prices*, any of which may be successful, if properly administered.

The preparatory measures consist in emptying the bowels in the afternoon with a good dose of castor oil or cream of tartar, and abstaining from any food that day. In the evening, before going to bed, one or other of the mentioned specific remedies must be taken according to direction. The purgative to follow in the morning, two hours after the second dose of the specific, is perhaps a large dose of castor oil, or two grains of aloes and five grains of rhubarb, put in empty capsules to disguise their very bitter taste, or any other brisk purgative.

When the bowels begin to act, sit on a vessel half-filled with warm water, or covered with mosquito netting (to let the stool go through while retaining the worm on its surface, to prevent its breaking off). Keep perfectly quiet until all is discharged. Now examine carefully, to see if the *head*, which is very small, attached to a slender neck, is also *expelled*; otherwise the treatment must be renewed. Should

the head *apparently* not be passed, yet if, after three months, no joints pass, the treatment may be considered successful.

Prescriptions for Tapeworm:—

Ethereal oil of male fern, $1\frac{1}{2}$ drachms.

Spirits of turpentine (rectified), 20 drops.

Chloroform, 15 drops.

Mucilage of gum arabic to make 1 ounce.

Take one-half in the evening, and the other in the morning, fasting; the last dose to be followed in two hours by a brisk purgative. Or—

Oil of pumpkin-seed, oil of male fern, each 2 drachms.

Take in two doses, as above directed, and also follow in two hours by a purgative. Or—

Pelleterine tannate (Merk), 40 grains.

Kousin, 30 grains.

Granatose, 2 grains.

Put in six capsules and take with water, three in the evening and three in the morning, as above directed.

These prescriptions are, of course, for adults; a child ten years old to receive one-half, and of five years old, one-quarter of above quantities.

Sometimes plain powdered or crushed pumpkin-seed, two drachms, nights and mornings, prove successful.

CHAPTER IV

SPECIFIC DISEASES

GENERAL REMARKS

There are some diseases which are supposed to be produced by a certain contagion, it may be by immediate contact, a volatile infectious matter, or certain micro-organisms, as we will presently see. The real causes are still a greatly disputed point, but the fact that certain diseases most frequently occur in closely inhabited communities or neighborhoods, or in families, has prompted thorough investigation, but with very conflicting results. Hence it is out of the question to present to the general public any scientific theories; for the people have a right to demand facts, and not controversies, from professional men.

In giving some special points regarding such diseases, it is not to be supposed that the services of a physician are to be dispensed with, but, rather, to assist in case it be not necessary to give scientific treatment. It is self-evident that, if severe and alarming symptoms should occur, the advice of a competent physician should be sought.

Malaria.—This is one of the most common and extensive of specific diseases, because it occurs, almost exclusively, in localities where swamps and stagnant water abound, with insufficient drainage. There is much speculation about the real causes of malarial fevers, but the most obvious cause is the

inhalation of evaporated miasm, susceptible subjects being attacked with the various forms of that group of diseases when exposed to such specific miasmatic atmosphere. But it usually ceases on changing to a low temperature, and, for this reason, malaria rarely occurs in severe form in winter. Sometimes such poison may remain latent for a certain period before an outbreak takes place, especially during winter-time or a very dry summer.

The latest notion is the mosquito theory, which has been mentioned already. It is known that these insects are very numerous about stagnant waters, marshes, and swamps; and whenever such localities are thoroughly tilled, or otherwise drained, malarial fevers are very much lessened, and, naturally, mosquitoes will also disappear. That mosquitoes can not be considered as the carriers of malaria from one person to another is certainly a rational conclusion, because, if such a source of infection could take place, a mosquito stinging a smallpox, scarlet fever, typhoid fever, or yellow fever patient would transfer such diseases also, which, of course, never happens. This conclusively proves the fallacy of such supposition.

As to the peculiar phenomena of malarial fevers in a typical case, they are presented in three pronounced stages, chill, fever, and sweating; but any one of them may be wanting, yet an experienced observer will detect at once the real nature of the disease.

The forms in which malaria develops are intermittent, remittent, and typho-malarial fevers, accompanied, sometimes, with pneumonia (as the so-

called winter fever), and congestion or torpidity of the liver (bilious fever), and also may be complicated with almost any other disease, showing the most diverse manifestations.

It would certainly be out of place to enter into a description or treatment of very severe forms of malaria or any such complication, yet I felt it advisable to give a rational treatment for the more common forms of malaria and certain complications, as I practised for over twenty years in a malarial neighborhood. Now, in intermittent fever, we find a comparatively good state of health, excepting that, at a certain time every day, every second or third day, as the case may be, the characteristic malarial phenomena appear; that is, first, a condition of chilliness, then another of more or less high fever, and, lastly, profuse sweating, constituting such an attack. Yet now and then one or other condition may be absent; but the experienced inhabitants of a malarial locality will know the real nature of the disease, and a physician will detect it at once.

Next comes remittent fever, where the paroxysm occurs at any indefinite time, with the same characteristics as the forms previously mentioned, only that the intermissions are of irregular and shorter duration. A typhoid state—that is, where the senses are obtunded to a certain extent, may also develop as well as in any other disease, so as to complicate malarial fevers and render such conditions very dangerous; so that a physician must at once be summoned.

Now, the older practitioners thought that no medicines (so-called antiperiodic) should be admin-

istered during a periodical paroxysm; but such inference is not correct, being based on prejudice, and has often prevented a quick cure, especially in remittent fevers.

As no medicine, as a rule, should ever be given except when imperatively demanded, so it would be imprudent to administer a remedy indiscriminately. But to administer medicine in intermittent fevers, it should be commenced about six or eight hours before the expected attack, so that at least three or four doses can be taken. If an attack does not appear, or, in other words, is prevented by the remedy, the same course should be followed the seventh, fourteenth, twenty-first, and twenty-eighth days, to guard against a return, which is most probable on these days.

In remittent fever, the medicine must be taken uninterruptedly for forty-eight hours, one dose every four hours, and then, perhaps, one, two, or three doses per day for a week, when a return is very improbable, or it may be transformed into an intermittent fever, and treated as such. The actual medication should be instituted by providing for a loose condition of the bowels, and, for that purpose, an excellent prescription is 1 teaspoonful of cream of tartar, to which may be added 10 to 15 drops of fluid extract of cascara sagrada, and which may be taken every four hours until effectual. After this, in the above described manner, one or the other of the following antiperiodics may be given:—

(1) Quinine sulphate, 2 to 4 grains.

Either with water or in capsules. One every two hours until four doses are taken before the paroxysm

is expected; and each dose may be followed by a glass of lemonade. Or give:—

(2) Quinine sulphate, 1 drachm (60 grains).

Aromatic sulphuric acid, 1 drachm (60 drops).

Peppermint water, 2 ounces.

Give a teaspoonful every two hours as above indicated. Or give:—

(3) Quinine sulphate, 45 grains.

Powdered capsicum, 15 grains.

Powdered rhubarb, 5 grains.

Divide into fifteen parts and put in capsules. Give one as above recommended.

It must be repeated that, for remittent fevers, the antimalarial remedies should be given every four hours for forty-eight hours, in order to break the fever or transform it into an intermittent type, which will have to be treated as described until cured.

For children, the following tasteless preparation is very favorably recommended, as children take it willingly:—

Cinchonia alkaloid, $\frac{1}{2}$ drachm (30 grains).

Alcohol, 1 drachm.

Mix.

Bicarbonate of soda, 5 grains.

Dissolve in—

Peppermint water, 1 ounce.

Mix with above, and add—

Simple syrup, 1 ounce.

This will make a two-ounce mixture. Give a child ten years old one teaspoonful; five years old,

half a teaspoonful; two and a half years old, fifteen drops, in the same manner as directed above.

This treatment will rarely ever fail, and will do no harm whatever. And if a debilitated person needs afterwards a good tonic, any of the above mentioned prescriptions will answer the purpose, if only one-half or one-fourth of a dose is given three times a day, after meals.

Sometimes a decided anæmic (bloodless) condition is present, and, for the purpose of enriching the blood, the following may be given:—

Citrate of iron, 1 drachm (60 grains).

Peppermint water, 2 ounces.

Give one teaspoonful three times a day, after meals, until natural color is restored.

Measles.—A common eruptive disease of childhood, occurring rarely in adult life; is accompanied by more or less fever, a cough, often so severe as to baffle all efforts of the physician, and the specific rash. But as the disease usually ends in recovery, and, as a rule, protects a child against further attacks, it is more desirable for a child to pass through it than to take it later on.

There is no particular medicine necessary, save to keep the bowels open with some mild laxative; but it is essential to protect the patient against drafts and sudden exposure. We have no specific for this disease, yet, should complications arise, it may be advisable to consult the family physician.

Scarlet Fever.—The name defines the characteristics of the disease, and, accordingly, we find diffused red discoloration of the skin; first on the

chest, and, finally, the whole body. These symptoms are usually accompanied by high fever and vomiting; also by inflammation of the throat and tongue, the latter being of a strawberry color, and sometimes called "strawberry tongue." The disease itself is not necessarily dangerous, but the sequels (diseases following) are often not only alarming, but may, through improper treatment, remain for life. Among these we should mention sore eyes, running ears, defective hearing, defects of the mind, and even epilepsy. If the disease is of a mild character, no special medicines are required, and, as there is no specific known, the following may with safety be used:—

Glycerine, 1 ounce.

Alcohol, 1 ounce.

Water, 1 pint.

Apply to inflamed surface every three or four hours.

As a gargle, the following may be used:—

Chlorate of potassium, $\frac{1}{2}$ ounce.

Slippery elm water, 4 ounces.

Tincture cinnamon, $\frac{1}{2}$ ounce.

Let the child gargle every hour.

Any serious symptom or complication must be treated by a medical practitioner.

Diphtheria.—This is a more dangerous affection than measles or scarlet fever, and is indicated by whitish accumulations on the tonsils (uvula) and throat which finally assume the character of tough membranes; hence its close relationship to membranous croup.

It would be wrong to advise home treatment in such a formidable disease; yet it is safe to examine the throats of children when the least complaint is made; and when the above mentioned parts are red and swollen, it should arouse suspicion. The same gargle may be used as in scarlet fever, or one composed of two drachms of alum to four ounces of water; but, when membranes are forming which can not be dislodged by gently using a swab of cotton, professional aid must be procured.

The new treatment of injecting so-called antitoxin is, to my mind, the most irrational procedure which could be devised, and I am certain it will not be long before it will be abandoned. I confess that I never have used it, yet I have treated a great many cases of the disease with satisfactory success.

The following editorial is copied from the *Medical Brief*, page 1198:—

“THE ANTITOXIN FRAUD

“Every few days we see in the newspapers an account of the discovery of some new antitoxin. They seem to be all stillborn, as that is the first and the last we hear of them.

“The truth is, the antitoxin vogue is about played out. At first, the novelty of the idea, and the fact that good results were obtained from the injections in certain cases of diphtheria, attracted the attention and favorable notice of some able men in the profession; but they gradually discovered that it was the antiseptic—the carbolic acid or trikresol—which gave these good results, and hence they have dropped the serum for plain aqueous solutions of the antiseptic.

"The only difference to-day between a solution of one of these antiseptics in distilled water and the diphtheria serum is the impure source of water employed in making antitoxin. But it is no longer dangerous as at first. The manufacturer has learned by grim experience that enough of the antiseptic must be used to render the horse-serum absolutely inert. Hence he has substituted the very much more powerful and less poisonous trikresol for carbolic acid.

"The horse-serum being carefully rendered inert, the only potency in antitoxin is the antiseptic. But is it not better to start with a hygienic solution of pure water than one contaminated by the presence of organic impurities, and requiring such thorough sterilization to avoid fatalities? The profession has answered this natural query in the affirmative. The majority prefer the use of distilled to tainted water in preparing antiseptic solutions for use in diphtheria.

"Antitoxin is practically dead. The best men no longer use it, and were it not for the efforts of those concerned in the manufacture of the serum, it would pass into the limbo of things forgotten. But, of course, those to whom it is a matter of business will do all in their power to stimulate its waning popularity. They will not meet with much success. It is too plain that antitoxin has absolutely no merit in itself, that all the virtue resides in the antiseptic, and no doctor, however obliging, cares to aid in perpetuating a fraud."

Comments are unnecessary upon such manly expressions.

Whooping-cough.—This is also an affection of childhood. It consists in a cough, accompanied by a well-known hoarse whoop, with choking paroxysms. As the disease runs a somewhat definite course, mild cases need no special treatment; yet the following may be given at certain times:—

Honey, $1\frac{1}{2}$ ounce.

Syrup ipecac, $\frac{1}{2}$ ounce.

Bromide of potassium, 1 drachm (60 grains).

Give to a child one year old fifteen drops every two hours, or as often as may be necessary; older children in proportion to age, as has been stated. For severe forms, no instruction can be given, as such cases have to be treated by a physician.

Croup.—Also a disease of children, consisting in a more or less accumulation of a tough mucous secretion following severe inflammation of the throat and head of windpipe (pharynx). The danger in this affection is of the child's being suffocated to death, or it may run into true croup (membraneous croup), one of the most dangerous affections known.

But in the beginning, when hoarseness indicates the trouble, the neck should be poulticed with flax-seed meal and hot water, to which may be added some lard. This should be applied lukewarm, and the bowels kept loose. For croupous symptoms the following may be given:—

Syrup ipecac, 1 ounce.

Camphor water, $\frac{1}{2}$ ounce.

Fennel water, $\frac{1}{2}$ ounce.

Give a child one year old ten to fifteen drops every half hour; older children in proportion. Keep

on hand, also, the pure syrup of ipecac, and when choking or suffocation is threatened, give fifteen to thirty drops in warm water every fifteen minutes until free vomiting takes place, when the child may be considered out of danger. To children above one year old, it must, of course, be given in proportion to their age.

If the disease turns into true, or what is called membranous, croup, showing alarming symptoms of choking and a very peculiar, fretful look, a physician must be summoned at once.

Erysipelas.—This disease is characterized by an eruption in the beginning, usually on the face, and spreading rapidly. In the beginning, a purgative of epsom salts may be given to clear the bowels, and the affected part encircled with tincture of iodine, to prevent as much as possible any further spreading. Afterward, the following may be freely applied to the whole inflamed skin, with a feather or camel's-hair brush:—

Glycerine, alcohol, each 1 ounce.

To be repeated as often as skin gets dry.

If this is unsuccessful, after a thorough trial, it will be advisable to consult a physician.

Smallpox.—It would be out of the question to present any treatment for such a formidable disease, and, justly, health officers have to superintend such cases. Therefore, it is the duty of every person to report at once any suspicious case, in order to establish a correct diagnosis, and to institute such measures as are necessary for the benefit of the patient, as well as for the safety of the population.

Owing to more sanitary surroundings and increased personal cleanliness, smallpox is decidedly on the decrease, and will finally be extinguished altogether.

Typhoid Fever.—This very severe disease is supposed to be caused by a great variety of influences, but the profession has not been able to advance any positive theory. It would be out of the sphere of this work to enter into a full discussion of that subject. Suffice it to say that the presence of fever every evening, with increased rise of temperature, accompanied by severe headache, with wandering of the mind and no sleep, with discharges of a very peculiar and unusual composition, should rouse suspicion as to the presence of that disease, and a physician should be called immediately.

Consumption and Tuberculosis.—In the following *résumé* I desire to present my opinion of these conditions, based on study and practical experience. I claim no infallibility, but priority, because differing from many pathologists or bacteriologists; yet the profession, it is hoped, will give this essay careful and kind consideration, because these diseases are increasing to an alarming degree and proving universally destructive to life. In fact, the medical profession, up to date, is almost at a loss how to combat them. I have therefore deemed it advisable to discuss the subject somewhat at length, in order to enlighten the reader as much as possible as to the real nature, causes, prevention, and treatment of both conditions in a rational spirit. I will do so at least to the extent that the general public can reasonably be expected to fully comprehend.

But, in order to render a clear exposition of these conditions, it will be profitable to discuss each separately; also to touch upon the transformation from one to the other, as well as to consider certain complications.

The cardinal point which I wish to prominently emphasize concentrates in the general principle that tuberculosis and consumption (phthisis) are primarily two distinct and quite different affections; because tuberculosis is dependent upon and caused by the formation and accumulation of products of faulty nutrition and their deposition in various parts of the tissues and organs of the body, while consumption (proper) causes wasting and destruction of structures; yet, under certain conditions, which will be discussed later on, by a complication, or, rather, a submerging of one into the other, tuberculosis in an advanced state surrenders to a degenerative consumptive (cachectic, phthisical) condition, where partial or total destruction finally results.

Tuberculosis, general or pulmonary, is simply caused by the formation and deposition of tubercle products, and is not caused, as seems to be accepted, by insufficient nutrition, but is dependent upon and favored by aberrations of assimilation and faulty and perverted nutrition, through which process, along with the lymph, plastic materials are conveyed to various structures of the body which have not been needed or were not desirable in the organism, and which were not eliminated along with other excretions. And, by more or less conveyance, a final accumulation is the natural result, so that the increase in bulk may interfere with the functions of

the organs, and later on cause an irritating influence; and, according to situation, owing to certain degrees of pressure, disintegration of such masses takes place and final destruction, not only of themselves, but also of neighboring structures, results. The most prominent effects of this destructive process are found in the lungs, causing the so-called pulmonary tuberculosis. Such condition is in a far less degree found in other parts of the body, on serous membranes in the chest and abdomen, which we will presently see.

In order to appreciate the real cause and origin of tubercle formations, we may very profitably compare tuberculosis of the human with that of cattle, principally the milk cow, which later has been designated as tuberculosis (*perlsucht*, *stiersucht*, by Germans) of cattle, as a more general condition, and pulmonary tuberculosis as lung epidemic (*lungen-seuche* by Germans), as a local affection, at least in the incipient stage.

More than fifty years ago, when a boy of fifteen, my father, who occupied the position of veterinary surgeon in Germany, caused to be slaughtered many cows affected either with general or pulmonary tuberculosis. After the death of these animals there was found, in general tuberculosis, more or less abundant masses of tubercle deposits, principally on the membranes covering the organs of the chest and abdomen; but when in the lungs, these organs were found often of materially increased size, and one section showed a solidified structure somewhat resembling colored marble, in the incipient stage, through which

the air cells were filled with plastic materials, not of inflammatory origin, but consisting really of tubercle accumulations. The first symptoms of otherwise well-nourished cows are somewhat laborious breathing, a peculiar glary glistening of the eye-balls, and a fretful deportment. My father became, in the course of time, an expert diagnostician (without having recourse to the modern experiment of testing cows for tuberculosis with tuberculin), and was thereby enabled to detect the disease in its early development, and advised the owners to kill such animals, so that their meat could be used with perfect safety in the household. If such a course was not pursued, such tubercle masses would in course of time break down and slough (as it were), accompanied by destruction of tissues of surrounding structures, and finally lead into a putrefactive and gangrenous state, indicated by fetid expectoration, and ending in general consumption (*cachexia*) and death. In bulls serving a large herd, or draft oxen, or such steers as were quickly fattened, such diseases were of very rare occurrence.

Now, there naturally arises the question, Why are milk cows principally so affected? To this question it may safely be answered (contrary to other theories) that cows, as a rule, for the purpose of increasing their milk productiveness, receive an unusual amount of very nourishing food, through which are conveyed to the organism, along with the blood, products not needed for the production of milk or for the maintenance of the animal economy, and, not being eliminated along with other effete matters of the bowels, become deposited, as before explained.

Pulmonary and general tuberculosis in cattle are almost analogous to a like condition in the human subject, so far, at least, as the primary cause is concerned. But we must consider the fact that cows receive a lesser and simpler variety of food, as well as enjoy the benefit of an open-air pasture (especially in this country) and good water; hence it requires a considerably longer period for tuberculous deposits to reach a decomposed state, causing consumption, than in the case of the human subject.

While tuberculous deposits, in their incipency, may not be classed as strictly diseased, but rather as useless formations, yet if in time a change of life and diet does not take place, or if such products be not rendered immune by a cornifying or calcifying process, through which, as it were, a line of demarcation is secured, preserving healthy tissues from further destruction, then, of course, these tubercle formations will finally soften, breaking down, and becoming not only disintegrated themselves, but affecting surrounding tissues of organs, followed by the same result, the ending of life by general consumption.

In the human races, principally among the higher civilized nations, who indulge in a great variety of natural, artificially prepared, or often adulterated foods; who occupy unhealthy apartments, with unhygienic surroundings and want of sufficient fresh air; who engage in deleterious occupations in factories, mines, or other places of employment, where too many persons are crowded into inadequate spaces, a tuberculous condition often passes very rapidly into a state of general consumption. But such in-

fluences can not be considered as exclusive causes; for, if so, better situated persons would be exempt from such diseases, which is by no means a fact. Therefore, we have to look into other features in order to find more universal causes, applicable to all classes of people, so that each individual may receive appropriate instruction.

The most common cause is faulty nutrition, by which is meant, not insufficient food, but insufficient and faulty assimilation by reason of imperfect digestion, and lack of exercise in the open air; and many other causes which are discussed in Parts First and Second of this work.

We may now investigate the merits and real nature of the so-called tubercle bacillus, discovered by Koch, some fifteen years ago, in the expectoration of consumptives, as well as in the organism after death, and announced by him as the real cause of both tuberculosis and consumption. And, while it may be considered, to some extent, a scientific achievement, in probably confirming a diagnosis, yet I have never found any great difficulty in making a correct diagnosis without having to resort to a bacteriological examination. This, however, it is admitted, should not be considered final or conclusive.

As a proof that this specific bacillus is not the cause, but simply the effect, of pulmonary tuberculosis, it is a fact that its presence can only be proven after the degeneration and destruction of tubercles have fairly advanced, in which state the specific bacillus finds a favorable field for propagation and multiplication. Such a fact is verified by a comparison with fresh meat, cheese, and many other substances

in which no animal or vegetable life can be seen excepting where, by natural causes, such products undergo a state of decomposition, when maggots, or other vermin, will appear. When transferred to fresh and healthy materials, these vermin perish, as such animal parasites can live only in decomposed or putrefied matter. Hence, as the bacilli never are found in healthy tissues, they can no more be the cause of tuberculosis than maggots are the cause of decomposition in cheese, meats, etc.

Now, all the efforts to kill these bacilli in order to stamp out (?) tuberculosis and to prevent their entrance into the organism of healthy individuals, will prove the illusory character of the theory; hence all such measures must prove fruitless, even if such a destroying work could be effected. And the *rationale* is apparent, that when healthy tissue is protected against the danger of taking part in a destructive process in the lungs, and there remains sufficient healthy tissue to secure necessary functional activity, the bacilli will perish by being deprived of a favorable field of existence and reproduction.

In the foregoing I have endeavored to present this matter so plainly and explicitly that any thinking reader can grasp its truth. We have already seen how tuberculosis of the lungs passes, under certain circumstances, into pulmonary consumption, and that such state constitutes the so-called tuberculosis with expectoration, in which, no doubt, the bacilli are found.

Now, it is evident that a continuous destruction of lung tissue lessens the ability to supply the blood with the necessary oxygen for its purification and

enrichment. And this lack in that vital fluid must in time exert a very deleterious influence on the organism, followed by wasting of tissues, profound anæmia, emaciation, and death.

If in the incipient stage, by observing all the rules of proper hygiene, assisted by cautious medication, expectoration will lessen, and, as before stated, a cornifying or calcifying transformation of tubercles takes place, and the diseased tissues are prevented from farther spreading, so that sufficient lung tissue remains for a reasonable oxygenation and purification of the blood, a cure, to all intents and purposes, has been accomplished. Thus the person so afflicted, by adhering to a proper mode of living, many enjoy many years of comparatively good health.

We must now turn to the so-called tuberculosis without expectoration, and such a condition differs from the foregoing only in that the serous membranes (abdominal tuberculosis) are the places of deposit, and neighboring organs take no pronounced part in the destructive process; hence its very slow development is apparent. Such conditions are often difficult to diagnose, except in an advanced stage, when their bulk or irritating influence interferes with the function of the organs, or when a decided decomposition and sloughing announce a state of consumption.

The presence of tubercle formations as products of faulty nutrition, where functional activity of the organs is not seriously impaired, permits of another proposition of the analogy between these products and the various kinds of *tumors, growths, benign* and

malignant; and we must assume that all such abnormal growths are caused by faulty nutrition and assimilation in a like manner. When such are classed as benign and malignant tumors, the benign are merely an accumulation of plastic material, and may only interfere by their bulk in pressing on neighboring structures, while malignant structures absorb poisonous materials from the system, just as a poison plant derives its poison principally from the soil or from the air. This is also the case in cancerous growths, in which, along with cell products, deleterious substances which should have been eliminated by the kidneys, liver, or digestive tract are also conveyed along with such plastic materials, and, no doubt, form, in that way, malignant growths. This principle may be found rather unique, yet it will stand the test of rational reasoning. If there exists a case of emaciation without tubercular origin, such a state is caused by insufficient or unhealthy food, exposures, or hardships, through which deterioration of vital fluids takes place, and final dissolution of the organism, ending in death by partial or entire starvation. While such conditions are found in the vast majority of instances amongst the indigent population, yet isolated cases may be found among the better situated, where it is not dependent upon quantity or quality of food, but insufficient assimilation and inadequate nutrition, with all their consequences. In the incipient stages of such consumptive state the patient may be restored to health if the proper want is supplied, so that normal functions can be restored and maintained. By adequate nourishment the organism may recuperate and the

wasted tissues be replenished, or, in other words, re-establishment of health be achieved.

Acquirement of Pulmonary Tuberculosis.—It has already been remarked that the *specific bacillus* can not be the exciting cause of tuberculosis; hence the fear of transferring these microbes from person to person, or from the sputum (expectoration) of patients, inhaled in some way, or by means of milk from tuberculous (?) cows, is far more illusory than real, and such theory of infection never will be proved beyond a doubt.

For the sake of science, and as a proof of my thorough conviction, I would willingly expose myself any time and in any manner to such sources of infection without the least fear for my health or life; and have often made such test in the presence of many spectators more than twenty years ago.

The supposition that consumption is *hereditary* is so far plausible that a certain predisposition may be inherited from the parents, especially by the daughter from the father and by the son from the mother; but never the *actual disease* from person to person. In other words, weakly parents can not be expected to beget robust children, but constitutional defects must influence offspring accordingly.

Prevention (Prophylaxis).—For the purpose of *stamping out tuberculosis* of the lungs (consumption of the lungs), many measures have been suggested and urged; but it is very much to be regretted that the majority of medical reformers or officers of boards of health cling to so-called authorities who seem to apply mere speculation or illusory theories to imaginary principles, and so to direct their whole

attention to finding means for the destruction of the *tubercle bacilli* and to the supposition that they have thereby solved the problem; yet all such efforts will not only prove disappointing, but will, according to my judgment, continue to be void of practical results.

The only hope of eradicating these very destructive diseases can be realized only through *hygienic reform*, as the most essential factor, and therefore, to avoid repetition, the reader's attention is specially directed to Parts First and Second of this work.

Management and Treatment.—Up to the present time, fruitless efforts have been made to find a specific, or certain cure, for tuberculosis or consumption. Among others may be mentioned tuberculin (Koch), lysol, creosote, intravenous injections, Sanosin, besides certain special methods; yet all of these will prove, in the future, as in the past, sad disappointments to the sufferers, to many of whom some of these so-called remedies have been positively injurious. It is therefore plain that to treat such a formidable disease requires an experienced, competent, and very conservative physician, who will make each case a special study, and modify his treatment according to special indications, and then see that his instructions as to *proper hygiene* are strictly carried out. This will prove far more valuable than all medicines combined, which often rob a patient of the last trace of appetite.

Nevertheless, medicines are sometimes imperative, and if the physician has given such hygienic instructions he will attend to any complications or special indications as they may arise, and be at all times very cautious, so that such medicaments are

administered as will not in the least disturb digestion or deprive a patient of proper nutrition, the sheet anchor of permanent cure.

From the time when consumption began increasing in severity, as well as in number of victims, many special methods have been proposed and practised; but, after the test of experience, have been abandoned. And this will perhaps be the fate of others yet to be advanced as sure cures. But I fear that not only disappointment on the part of patients, but injurious effects on their organism, will be the sad result—out of all proportion to real benefits derived.

The most reliance must be placed upon proper food, fresh air, and sunshine, moderate outdoor exercise when possible, and thorough ventilation of apartments at night not on ground floors, but in second stories or attics, where the air is purer and richer than below, and also upon maintaining proper digestion and assimilation.

Grip; *Grippe* (German); *La Grippe* (French).—Although with a certain aversion, I place the above heading over the following disease, because these words mean, “Take hold,” “to grasp,” “to pinch,” etc.; but such designations are misnomers. Physicians call it *influenza*, and, more distinctively, *epidemic catarrh*, embracing a complication rather than an isolated disease, and doctors often, for want of a better name, to satisfy the inquisitive, call a great variety of conditions simply “grip.”

The cause of these disorders seems to depend upon certain atmospheric and climatic influences, the nature of which has not as yet been satisfactorily revealed, and the disorder is classed, with some pro-

priety, among the specific diseases. While the respiratory organs are principally affected, yet complications, such as *malaria*, *rheumatism*, *nervous disturbances*, as well as affections of *other organs* and *structures* of the body, present themselves.

As we have no specific for such complicated disorders, and inasmuch as the disease runs rather a mild course, and, if properly treated, is rarely fatal to life, therefore energetic treatment is seldom called for. The principal *treatment* consists in avoiding direct drafts, as well as overheated apartments not provided with proper ventilation.

Special conditions, such as constipation, diarrhœa, malaria, as well as an annoying cough, should be treated as has been pointed out under special heading in the division of "*Common Diseases*."

The diet should be of the very simplest kind, as has been mentioned in detail in Part First of this work; hence no special directions seem to be called for in this connection.

It must be remembered that, if stomach and bowels, as well as kidneys and liver, perform their destined duties, or are carefully assisted to do so, the whole organism will soon recover its former healthy condition, and no serious consequences may be expected. All *overmedication* does far more harm than good, and we would better give nature the opportunity to help itself.

CHAPTER V

PROPER CARE OF THE SICK

In the care of the sick, a great deal depends upon the nurse and nursing. It must not be supposed that such a person must needs be specially trained for that purpose, because any sensible and experienced woman may be just as acceptable, especially when amongst less favorably situated people, where expenses are to be taken into consideration.

As a matter of fact, a near relative or friend of a patient will naturally, owing to intimacy and devoted love, feel more sympathy for a patient than a strange person. And it may be questioned if a so-called trained nurse, no matter what ordinary virtues the individual may possess, is able to preserve such an unimpaired interest because of constant connection with the sick of very different emotions, character, and habits, being accustomed to cries of pain and often exaggeration of feelings on the part of nervous patients; while a relative will be more apt to preserve a sympathetic and lovable disposition in spite of occasional outbursts of ill nature.

A well-conducted nursing, by which the hopeful spirit of a patient is strengthened, often exerts a greater influence towards recovery than all medicines. It should at all times be the duty of the nurse to appear in the sick room with a firm but sympathetic spirit, so that the patient may have the utmost confidence and a hope of final recovery.

As to the attending physician, he should, as a

rule, approach a patient with earnestness, yet with kindness of feeling, addressing some well-chosen words, and inquiring carefully and very cautiously into the patient's condition, and acting according to his honest judgment as far as possible. If symptoms should be at all alarming, a physician must preserve at all times presence of mind; and any question that may serve to increase the anxiety and fear of a patient should be asked outside of the sick chamber.

The physician should also take particular pains to instruct the nurse as well as relatives not to inquire in the presence of the patient as to the possible prospect or results of a disease; but should dangerous symptoms develop, to report to him confidentially outside the patient's room. And it must be left entirely to the physician's discretion what should be imparted to the patient. It is now and then very excusable if a physician holds out certain hopes of the recovery of a patient, rather contrary to his best judgment; but it must be done with the greatest prudence, to be sure of avoiding a later disappointment or censure.

Visitors, before entering the sick room, should be cautioned not to discuss the disease with the patient, but, in conversation, which, by the way, should be as restricted as possible, expression of hope for recovery may be given, discussing matters of a pleasing nature, so as to divert the thought of the sick person as much as possible from the disease. I have witnessed bad consequences from visitors expressing, in the presence of a patient, a certain anxiety and fear for his condition, such as remarking, "You do not seem to

be any better," or, "You seem worse," or giving advice to prepare for death if things don't improve, etc. Such suggestions have often the effect of changing a rather mild disease to a serious one, or at least of lessening a hope of recovery on the part of a patient. And if, as it sometimes really happens, the mental depression increases prostration and hastens death, the attending physician is censured or criticized for the indiscretions of others.

There is another error often committed in continually animating a patient to take nourishment, while a very reserved encouragement often suffices. Now, we must consider that, when neither hunger nor thirst (as the case may be) is experienced, we should not lose sight of the fact that any food entering the stomach unprepared to receive such supply will only annoy and burden that organ, and may result in atonic dyspepsia, thus acting as a really injurious element. Let us be mindful that the entire absence of appetite is very often a warning of nature that the organs of digestion are needing rest in order to regain former normal activity. The general rule should be always observed that real hunger or thirst should be considered as the only inducement to eat or to drink.

In exceptional instances, appetite may be ferocious, and the physician and nurse have to insist on moderation and restriction as to quantity or quality at a certain meal, because such imprudence will be followed by injurious consequences.

Water has been, especially by older physicians, often prohibited; but, happily, such is not the general custom nowadays. It is advisable never to allow a

patient to suffer thirst, although the quantity taken may be somewhat regulated according to circumstances.

Fresh and pure air should at all times have free access into the sick chamber, and for this reason the number of visitors should be restricted as much as possible, so that the air in the sick room may be kept as pure as possible, even aside from the annoyance of many visitors at one time.

Ventilation is at all times imperatively demanded, and, if no other elaborate provisions are at hand, a most simple and at the same time inexpensive method consists in lowering, more or less, the upper window sashes. This serves the purpose very well, and at the same time secures a patient against direct drafts, so injurious in many diseases.

A certain belief is somewhat prevalent that light should be excluded from sick rooms. While it may be necessary in some exceptional circumstances to have the apartment darkened, as when a patient is sleeping, yet at most other times the room should be light, as this has the advantage of brightening the mind of the sick and preventing brooding over some object in the dark.

It is also self-evident that patients, as well as apartments, should be kept scrupulously clean, and, by proper ventilation, there will be scarcely any special need for obnoxious disinfectants, the smell of which is often sufficient to make a person feel sick. In contagious diseases the use of such disinfectants must be left to the direction of the attending physician.

CHAPTER VI

RULES FOR CONVALESCENTS

Rules for Convalescents.—When a patient has recovered from the effects of a disease, and is in need of recuperation, it is a great error, though prompted by anxiety, to make unusual efforts to replace lost strength and vigor in the shortest possible time by forcing, as it were, highly nutritious diet upon the convalescent. The food should not be irrational, either in quantity or quality. We must not lose sight of the fact that it is not the amount of food taken which may give adequate nourishment and replenishment, but such parts of it as will be properly digested and assimilated. Therefore the greatest caution must be exercised, and due discrimination made in the selection of food, as well as in the proper intervals between meals, so that the weakened system may receive sufficient nourishment without overcrowding and forcing an undue action of the digestive organs. Often the most undesirable consequences have followed the neglect of such precautions, even proving, in some cases, beyond rectification. At least a relapse may take place, even worse than the primary disease had been.

The best food for a convalescent is a plain, nourishing diet, in moderate quantities, plenty of fresh, pure air, outdoor exercise in such a degree as returning strength will permit, and such useful recreation as occasion affords.

CHAPTER VII

OLD AGE

We have begun this book with the rearing of children, followed the human life through all stages to a full maturity, when at last the young men and women, as parents, step into our places to fulfil their destined mission in life by providing for the perpetuation of the human race. The mother, in giving birth to her child and assuming the sacred duty of providing for the newborn, must appreciate the importance of the first nourishment, as well as the necessary care in conducting its progress in life; in which duties a tender husband and devoted father will be, of course, her faithful and confidential assistant and adviser. And such order of succession must take place as long as the human race exists.

As years advance, after all anxiety, worry, and care for children, the individual ought to reach a ripe old age. It is a natural instinct that most people desire to enjoy quite long lives, yet comparatively few are willing to comply with nature's laws.

The enjoyment of comparative good health for three-quarters of a century or over may now be considered as acquiring a ripe old age; nevertheless, history tells us of individuals who lived several centuries, yet we can not expect to return to the advantages of ancient times.

There is no mystery as to the means of attaining a high age before the expression "senility" would be appropriately applied, and it may be said that

such age is not unapproachable if the individual will study the present work thoroughly and comply with all the conditions favorable to health and longevity.

That persons die early or reach prematurely a state of senility is, as a general rule, but a punishment for indulging many avoidable indiscretions; hence they must accept the consequences.

So I would earnestly advise the reader to follow the precepts contained in this work as closely as his station in life will permit, and he will receive full reward in the enjoyment of health, and in securing a long and happy life. Thus the mission of this book may be fulfilled.

ADDENDA

The Physician

It is safe to say that the conduct and influence of a model physician are inestimable, and it is with a kind of hesitancy that I attempt to discuss this subject, for fear of being accused of prejudice or of being opinionated; yet I feel it a duty to the public to present my humble sentiments, so as to enable, perhaps, the reader better to judge for himself in making a proper selection of a family physician. It is of the utmost importance to engage a good-hearted, honest, faithful, and competent doctor, a man who will be worthy of all confidence and necessary encouragement in his labor, so as to be appreciated and protected against injustice and undeserved criticism.

It is a fact that most people have exaggerated ideas as to the wonderful things a physician can or should accomplish, while in reality he is, in most instances, only able to give nature a gentle aid. There exists, even in the minds of many medical men, a good degree of imagination or assumption regarding the grand services they are able to render by prescribing a lot of medicine for the cure (?) of disease. So, also, a good many parade as being most highly educated in the healing art, and seem to think that it requires an elaborate theoretical education to be a competent practitioner. But I remember that one of my old professors said, in his farewell lecture: "Now, young men, you have re-

ceived an elaborate instruction in the many departments of the healing art, and no doubt such knowledge will remain fresh in your memories for some time to come; but, finally, one-half, perhaps, will be forgotten. I must remind you not to forget the one-half which is of actual practical utility and value in your practise, because that counts; and you must refresh and enrich that half constantly by careful observation and rational reasoning. Do not forget practical anatomy, the principles of physiology, and, above all, do not forget my instructions on *hygiene*; and if you follow a conservative spirit in your daily practise, observing proper conduct in the sick room, and striving to be faithful servants of nature, your final success is assured. It may not bring you a fortune in a short time, but you will be a beloved and honored neighbor, and an admired and respected doctor."

Such golden words are worthy of remembrance, and should form the cornerstone of our medical edifice, in full spiritual meaning.

Doctors first had to absolve a two years' course, then a three years' course, and at present they have a four years' course; and the superficial thinker may imagine that nowadays it requires such an extended time to become competent to practise medicine. But it seems to me that the real cause is to be found in the medical colleges, whose courses are planned for the purpose of securing financial advantages and for diminishing the unproportionate increase of doctors. Young men, from diverse motives, select the study of medicine. Often it is not a matter of choice as a profession, but is chosen because of the

supposition that a physician's life requires no hard labor, but is, nevertheless, well compensated.

My old professor of practise used to say that "elaborate theoretical knowledge is far overshadowed by good common sense, acute and correct judgment, and mechanical skill; and that the possession of such qualities could never be equalized or compensated for by elaborate theoretical knowledge."

It is self-evident that a practical knowledge of the fundamental branches in medicine is imperatively necessary, but to go beyond that may be left to the fancy of students desiring to possess something to forget, excepting when, as prospective teachers, special branches may be studied to the neglect of others.

It is a common occurrence for graduates in medicine to leave school with medals and high honors, to become utter failures in practise, because the requirements previously mentioned are wanting. On the other hand, students who hardly passed an examination have reached a high pinnacle as successful practitioners.

The practise of medicine has not and never will become an exact science, and doctors will continue to make errors or commit real blunders both in diagnosis and in treatment. And so many cling to experimentation; yet if such experiments were made with mild and simple remedies, no harm could result, while strong and poisonous mixtures are not only injurious to health, but may also cause death.

Another feature must also be considered, namely, that a doctor is expected to present a respectable appearance, which means that he must wear good

clothes and possess a fine office outfit and carriage, as well as provide for his family in a manner corresponding to his assumed station in life, all of which entails very heavy expense. Owing to sharp competition almost everywhere, by a constantly increasing number of physicians, the burden of this expense is greatly increased. A well-to-do and senior doctor can easily brave it out, for he has the advantage as family physician, often among very wealthy patrons, of securing, at any rate, a good income; while the young but poor doctor has to contend against all possible disadvantages, no matter what his personal fitness or ability. Thus he is often left to his fate, or is obliged to retire to localities where sharp competition is out of the question. If he prefers to remain, however, he has to resort to questionable methods, such as the deception of patients, playing the hypocrite in joining a church or entering lodges, and such other societies, in order to force himself into society and secure a remunerative practise.

A luxuriant, finely fitted office, with costly instruments and appliances, attracts the attention of the general public, who entertain the foolish belief that such a doctor must possess superior knowledge, and therefore renders extraordinary service. But there is no doubt that, in many such offices, questionable manipulations are often practised for the purpose of fleecing patrons.

It is very much to be regretted that it requires very questionable qualities to acquire financial success, or to "make money," as the saying goes; and many advance the idea that the public wants to be

humbugged. This is exemplified by the many jokes and sarcastic, ironical, and covert hinting at doctors which appear not only in the lay press, but also in medical journals, which present them for amusement and probable instruction. The real reform would simply consist in having doctors in less numbers, but the faithful and conservative more numerous.

The Surgeon

In reference to surgical aid, it must be admitted that a very conservative and competent surgeon, who possesses, besides knowledge and skill, a sympathetic nature and a philanthropic spirit, ought to be, in any community, considered as a most desirable acquisition and a great blessing to mankind. On the other hand, a bold, unscrupulous, and reckless surgeon who only aims to carry out the extreme limits for lucrative compensation, will be a curse to humanity, and it is to be regretted that no provision can be made to expel such a man from the ranks of the profession.

There is another point worthy of special mention, namely, that a doctor will consider himself competent to perform an operation which an experienced surgeon probably would hesitate to undertake. Yet such a surgeon (?) may have two special objects in view—to make himself prominent as a great surgeon, and to reap pecuniary compensation for services often of very doubtful utility. It is fortunate for humanity that such fellows constitute a minority in the profession; otherwise the deception would have no limit.

We must always be mindful that, in any branch

of the healing art, nature has to do the most; and this applies also to surgery, because a surgeon can not unite a broken bone, nor heal a wound; he can only adjust the parts of a broken bone or coaptate the borders of a wound, while nature must accomplish the healing.

There is also much said about the advancement and achievements of modern surgery and the supposed lessening of mortality from operations. Yet a moment's reflection will make it clear beyond a doubt that a large percentage of the operations performed in these times would have been considered unnecessary or too dangerous in former times.

Further, former surgeons operated only to remove decidedly diseased structures, often in a state of gangrene, having infiltrated neighboring tissues; hence a greater mortality after actual operations could be expected. Now, it must be admitted, the knife is used very early, often prematurely, and also to invade parts not actually diseased, or such as are known not to be imperatively necessary to sustain life; hence they are made subject to some triumph (?) of modern surgery.

Statistical tables presented to prove the success of present surgery are very misleading and incorrect, being tabulated by enthusiastic surgeons to prove the superior skill and success of modern and antiseptic surgery. It is a fact that surgeons of the present day possess more boldness and dexterity through utilizing the achievements of older surgeons who had to deal with far greater difficulties than those of the present time.

The fact that, in former times, operations were performed without chloroform, or other anæsthetic, explains the higher death-rate especially, because more than half of the persons operated upon died of shock caused by the severe pain which they suffered; while at present, for the simplest operation, either a general or a local anæsthetic is used. And operations are performed now which older surgeons never would have thought necessary.

There are surgeons at present, who, for the sake of operating, or to make money, remove or mutilate parts which are known not to be imperatively essential to life; as, for example, the appendix, the ovaries, spleen, one kidney, prepuce in both sexes—formerly mostly in males, but lately in females—with a boldness and impudence that justify the severest criticism and condemnation. Many operations are done through a wrongly conceived indication, for lucrative remuneration, or merely to gratify a desire of patrons to rid themselves of certain parts of their anatomy. But such unscrupulous acts degrade the noble art of surgery, and it is high time that a voice be raised to enlighten the people on these subjects, that reckless surgeons may be rebuked.

Another point is also worthy of notice, which is, that the utmost cleanliness may dispense with the extensive and problematical practise of so-called antiseptic surgery in treating wounds and performing operations. When diseased structures or foreign substances are removed, the oozing out of healthy blood is the most admirable antiseptic, and a most

desirable factor in the healing process. If a wound be free from dirt or other foreign substances, even if the cut is not a smooth one, if proper coaptation can be made by sutures—or, far preferably, by strips of adhesive plaster properly applied—the healing process will be shortened very materially, and the need of disturbing a wound by removing the stitches is also dispensed with. Too much water used (if any) in cleansing a wound causes too much dilution of the blood plasma, and this material, which seals a wound perfectly, is partially destroyed; and thus the healing process is prolonged, because blood is the best antiseptic. It is self-evident that, when the injury is severe, or larger arteries are divided, a surgeon is the proper person to attend to the case, as only a surgeon can do so in a skillful and delicate manner.

We must now at least remind the reader that suggestion also plays a very important part in the domain of surgery, and success is more dependent upon that power than upon anything else, which, at first sight, may not be realized. The firm confidence that an injury would not be serious, or, when an operation was really necessary, approaching the surgeon's table with courage and firmness, with the full hope of recovery, has saved many patients from shock to the nervous system. Thus it has occurred that patients who were operated upon by rather unskilled surgeons recovered, while others, under the hand of more skillful and experienced operators, have succumbed through shock and fatal prostration. Therefore, should a patient have no confidence in a surgeon, or lack a firm conviction of recovery,

it would be far better to employ another surgeon, or not to submit to an operation at all.

The Obstetrician

What has been said of conservative surgery applies even with greater force to the doctor who assumes the duty of caring for a woman in confinement; for he has to deal with the natural process of parturition, through which a new life enters the world for the purpose of perpetuating the human race. And, as such a purely physiological process is established by the very necessity of providing for multiplication of the species, it should indeed occur very rarely that special artificial aid or real force (?) is necessary or that instrumental aid is justified.

It is very important that interested people should be enlightened as far as may be prudent, in order to impress at all times the so-called laity with the necessity of being mindful that the act of giving birth is a process for which nature has provided, and that it requires a certain amount of pain to accomplish the purpose. If people would grasp this whole matter in the right spirit, they would certainly consider what reasonably may be expected from the attending doctor (*accoucheur*), and would not worry him, nor induce him to interfere with the only safeguard to a happy issue of the case.

Every obstetrician has abundantly experienced the bad influences of members of the family, relatives, or meddlers, and presence of mind and firmness have been required in acting according to his best judgment for the safety of the two lives.

Young and inexperienced practitioners are espe-

cially inclined to gratify the anxiety of bystanders; or, being anxious to display superior skill in being able to shorten the *natural time* of a confinement, will sometimes commit unjustified and even rash acts.

In rather less favorably situated families it is considered a grateful act of a doctor to accept a case of confinement, and this, happily, puts him in a position to act entirely according to his best judgment, that he may conduct a labor to a successful issue.

In this respect, better situated patrons, who have the means to engage a so-called trained nurse, minister very much to the relief of a tempted doctor.

Such a nurse is usually engaged on the recommendation of the attending obstetrician, for an expected confinement; hence the management of such a case is left entirely to his discretion. And, in this instance, he must be held responsible to himself for any unjustified departure from a rational conservatism.

Of the greatest importance in the chamber of confinement (lying-in room) is the approach of the attendant physician and nurse, not in a spirit of pitiful sympathy for the parturient woman, but with kind and appropriate words of encouragement in the hours of such an ordeal, as an assurance to her that all will be done to properly alleviate her suffering and to conduct her case to a satisfactory and successful issue. A candid and sympathetic explanation of the very nature and requirements of this natural (physiological) process will, at all times, act as the most powerful mental anodyne.

Were such an ideal course always pursued, it would reduce rash and thoughtless manipulations or instrumental interferences to a minimum and prove the best safeguard against injuries to the mother which are liable to occur in forced or instrumental delivery. What is most required is patience and contentment, until nature has made full preparation for the birth to take place; and a competent *accoucheur*, who practises the utmost conservatism, one who is competent, in exceptional cases, to interfere at the proper time, and in the proper way, to insure the safety of mother and child, is, in the fullest sense of the word, a benefactor to women.

But there is another custom that claims our most earnest consideration, and that is the use of chloroform in labor. Many patrons make it a positive condition of an engagement to use an anæsthetic, and, for fear of losing a job, the doctor will make such an agreement. It is not the people's fault that such demands are made, for they do not know any better; but it is the reckless, meddlesome doctor who leaves the impression to a parturient woman and attendants that such irrational interference is the right course to pursue.

It is certainly the duty of a physician to relieve pain as much as possible and still retain perfect safety; but we must bear in mind that labor pains are the natural consequence of a physiological process, and are not produced by any diseased condition of the organism, and that, by benumbing and relieving such pains, we interfere with a natural process, the real intention of which is beyond our concep-

tion; and, further, that any irrational interference is not called for, because it is quite liable to prevent the organs engaged in that process from resuming their former position and function in an uninjured condition. For this important reason, people should never persuade or require an obstetric attendant to do anything against his judgment and rational conservatism.

The Specialist

To render a satisfactory definition of what constitutes a specialist seems not only appropriate here, but really essential. A specialist signifies one who knows something of all branches pertaining to the practise of medicine, and all (?) in a certain special branch.

In the proportion that medical aid seems more and more indispensable, the specialist in a certain branch rises to more prominence, and a good many people imagine that only a specialist is capable of administering a certain treatment, or of performing any certain operation, to perfection, and with safety.

When we consider that in former times a surgeon, for instance, would not only confine his labor to treating certain classes of diseases or injuries, but would also include eye, ear, throat, nose, or skin affections in his practise, it is but fair to admit that a man devoting his sole energy and attention to a certain special branch in medicine will in time, perhaps, be more competent to diagnose and treat ailments and conditions or perform operations within that branch with superior skill and success. But that is no rea-

son why a general practitioner with certain ambitions would not be able to accomplish the same results. The most renowned specialists have been recruited from the general rank of the profession, and have gained a world-wide fame.

The usual exorbitant charges of certain specialists, out of all proportion to their supposed skill, have rendered it impossible for less favorably situated persons to secure their services, and made it necessary for them to be content with the services of a general practitioner, probably the family physician; and, as a rule, they have rarely had reason to regret their disadvantages in not being able to secure the services of a specialist.

The Medical Quack and Pretender

There is everywhere a great variety of these unscrupulous fellows, and, while it can not be denied that a very few of them may possess some particular knowledge or a reasonable degree of skill in treating some diseases, shown now and then by a certain amount of success, yet the vast majority of them are ignorant of the first principles of medicine or surgery. They possess some special formulas, bought or gotten in some way from some physician or pharmacist, often being unacquainted with the character, or even the possible virtues, of the contents; and they recommend such mixtures for all possible ailments. A variety of methods are practised by these men to deceive and fleece the credulous public; it may be through a mail-order scheme, direct advertising, of the employment of cappers or steerers (as such

fellows are called), who possess the impertinence, boldness, and impudence to readily make themselves known in a community, and find out persons afflicted with diseases to be treated by the "doctor's" special means, either medical or surgical.

While in some instances a certain degree of apparent success may have followed such treatment, often by mere chance, yet in the majority of cases disappointment and an empty purse are the result. These tricksters are either partners or work for a certain percentage of such robbery; for, as a rule, credulous persons are shamefully fleeced, regardless of their pecuniary circumstances.

Free samples for a certain cure are sometimes distributed, in such quantities as could not benefit the sufferers, but are designed to inspire the belief that a continuance of such treatment would in time effect a cure. These samples are usually accompanied by testimonials of very questionable value when the analysis of reasoning puts them to the test. Reading, for instance, "I am better," "I am much improved," "I am confident of a cure," "It has helped me more than anything before," forms a slick trap to catch the thoughtless. But as soon as a guarantee of cure is demanded, these fellows make every effort to dodge the demand. They will tell you that such a course is against their invariable rule, that they must treat all persons alike, and make many other such excuses.

When a person fails to respond promptly on receiving and testing (?) a sample, and to order a course of treatment for a certain price, the great benevolence (?) of the schemers goes then so far

as to offer, as a special inducement, the treatment for one-half the regular price, to make a start; for they know when a person is once in their trap, he can not easily escape.

It is astonishing how people flock in great numbers to the offices of traveling doctors (?), men who are not known to them, in the hope of being relieved of disease, but finally find that they have been deceived and fleeced, while of a local doctor often impossibilities are expected. And here the common expression, "People want to be humbugged," proves itself.

The foregoing facts were elicited by personal correspondence with these slick fellows, under a spurious name, as it was my intention to expose such fraudulent schemes in order to warn, and thereby benefit, the public.

The Medicine Vender

This personality is also called the "patent medicine man," for the reason that he protects his mixture by registering a fanciful name as a trade-mark. By extensive advertising he makes his compounds everywhere known, sometimes emphasizing his other advertisements by almanacs for free distribution, parading in the boldest and most absurd manner the great virtues of his "medicine" for curing almost any disease that human flesh is heir to. And these claims are always accompanied by fake or real testimonials of the most wonderful (?) cures already effected.

It may be considered as a consolation to the public that most of these compounds contain no poisonous ingredients, as they consist of very simple materials,

or some rather innocent drug. The only virtue in such mixtures consists in *suggestions*, or the imagination of the individual who takes them; and, if by sheer good fortune, a person should be relieved by the inherent natural powers of the system, he is very willing and prompt to attribute the result to the supposed healing or curing power of a patent medicine. Now, by special tricks, there comes forward testimonials of cures, and the patent medicine vender is enabled to reap a fortune through the assistance of persons who, unaware and somewhat innocently, lend their aid to fleecing the general public.

If people would be correctly informed, and give heed to timely warning, thousands upon thousands of dollars would be better expended for really useful purposes, rather than for the compounds of so-called patent cure-alls.

APPENDIX

AN ESSAY ON THE PHYSICAL DEGENERATION OF THE HUMAN RACE

INTRODUCTION

For years past I have made this subject a special study, and my conclusions, based on careful observations and impartial comparison, is that the human race, principally amongst civilized nations, from generation to generation, is gradually retrograding, as far as physical condition and development are concerned; also that, owing to such a condition, the human constitution and bodily structure are becoming more and more sensitive, delicate, and predisposed to disease. Consequently, there is not only a shortening of individual life, but also a prospective menace to the well-being of descendants.

It has been my most earnest ambition to analyze this deplorable condition, and to find the real causes; because, in spite of extended efforts on the part of boards of health, teachers, and promoters of hygiene, and the supposed triumphs of modern medicine and surgery, this *physical decline*, or rather *retrogression*, has unabatingly advanced. I confess that it is really a surprise to me that no other investigator, as far as I am aware, has appeared in this most important field.

In submitting the following essay, I may perhaps be charged with exaggerating matters, but I am confident that, if no radical reform in civilized society be inaugurated, time will prove the correctness of my prognostication.

I. GENERAL OBSERVATION

From various sources statistical compilations are presented to prove (?) that the human race is gradually im-

proving, physically as well as mentally; yet it seems to me, as an acute observer, that such tables are decidedly misleading. It is much to be regretted that otherwise rational, thinking minds in high scientific standing coincide with such erroneous statements, and are inclined to the belief that mankind is gradually rising in the scale of mental and physical development, and that, owing to the achievements of medical science, the people enjoy a better state of health and a greater length of life. But, according to my personal observation, just the contrary is the fact, and to show this in a convincing manner is the object of this essay. It is my purpose to show that a constant, gradual physical retrogression of the more civilized portions of the human race takes place in successive generations, and that they are drifting to a weaker physical condition, while the mental development is rather premature, and in an unnaturally high degree, to the disadvantage of physical development.

A careful inspection will prove that the bony (*osseous*) structure of the human frame, as well as the muscular development and physical strength, is declining in a very marked degree. In many instances the full, plump figure of a mother, as compared with the daughter, shows that robust development is becoming more and more the exception. Actual tests and accurate measurements will bear out this statement, while the same conditions are shown by comparison between father and son.

As a striking illustration, let us compare the strong and sturdy physique of olden people with that of their descendants. The former presented, as a rule, the perfection of full physical development, possessing an unusual power of resistance to hardship, privation, and prolonged physical exertion, while such superior qualities are gradually giving way in children and grandchildren.

When we see our forefathers ornamented with long and full beards, the chest walls, armpits, and pubes also

covered with an abundance of hair, the body clothed with a rather coarse and tough skin, etc., the correctness of my position is made clear by comparison with the younger members of the present generation. In the latter full beards are a real exception, while beardlessness becomes more and more the rule, and the skin presents a more delicate and smooth appearance.

The elder females possessed also superior physical development, and powers of endurance in a marked degree. This was particularly noticeable in the prominence of their busts (*mammæ*), and these natural beauties of full development were preserved to quite an advanced age, while in the younger woman of the present generation, who, perchance, may possess, in rather exceptional instances, such development, they will recede before middle age is reached; and a great number of females nowadays are not endowed with such admirable gifts of nature at all.

But, as we further investigate this lamentable condition, we note that nowadays a beard rarely appears in reasonable prominence before the age of twenty-four years, and oftener even at that age there is but a short, thin growth, while the chest is more devoid of hair, as well as certain other parts of the body in both sexes. The bones are becoming more and more slender, and the muscles less developed, in spite of calisthenic exercises and physical culture. So also, on account of defective strength and lack of robustness, people become more and more predisposed to a variety of diseases.

The females of the younger generation, as a rule, other things being equal, menstruate earlier—prematurely—before full physical development has taken place; hence breasts become less prominent, and many individuals endeavor to hide the flatness of their busts. The whole structure of the body is becoming weaker and more delicate, strength is vanishing, and, while in former times perhaps twenty-five in a thousand had some female complaints,

there are now probably seventy-five or more in a thousand. As to physiognomy, the maiden presents rather the appearance of a young woman, and the young woman that of a matron.

With reference to longevity, we must also admit that real old age is becoming more and more the exception. While ninety to one hundred years was quite common amongst older people, old age has declined at the present to sixty-five or seventy, and will, in a few generations, become much lower, if no reform or natural change takes place. When we consult the history of ancient times, we read of extreme high ages, from three hundred to eight hundred years; so we must reasonably infer that such retrogression has gradually taken place from a rather early time up to the present. From these facts, and many others, it must be clear that, if conditions continue in the future as in the past, the human race, as it exists to-day, must finally perish; it must inevitably succumb to such unfavorable influences.

II. PROMINENT CAUSES

It can not suffice to portray such a sad picture of retrogression, nor can I be content with the mere citation of modern customs; for it is my earnest purpose and solemn duty to search as thoroughly as possible for the causes of such a condition as has been described, and to present facts for most careful consideration. In the light in which I view the matter, there are three principal factors which must receive investigation and exposition:—

Premature Mental Development.—It is really astonishing to observe the early maturity of mental faculties in children. In olden times such mental precocity as is seen in youths of ten years at the present day would have been considered as rather exceptional at the age of fifteen. We find very young children who can read, write, and cipher in a remarkable manner, often before attending school.

To give children an accomplished education seems to be the highest ambition of parents in these days, because it is believed that modern civilization demands an early school education of a high degree. Such ambition might be deemed a wise one were it not for the injurious detriment to full physical development; for it is reasonable to suppose that the premature crowding of the functional activity of the brain must inevitably interrupt and prevent such development before maturity is reached; in other words, the mental faculties are developed far ahead of the physical. This fact has also reflex action with reference to premature sexual excitement, favored by the power of grasping the spirit of certain literature, and fostering the desire for its perusal.

There could be no objection to a proper acquaintance with matters pertaining to sexual physiology, as a natural consequence, when both sexes approach full maturity. Then there is no need that they be kept in profound ignorance of sexual functions and their true purpose. But we must select for such purpose the proper reserved time, so that sexual activity may be delayed as long as possible, in order that physical development will not be interfered with.

Even a casual observer must admit that the perusal of questionable literature accompanied by early educational attainments, naturally stimulates and unduly excites the brain and nervous system to premature activity; while under such conditions physical growth can not be fully completed.

From the above deductions it must be admitted that individuals of either sex whose physical development is not as it should be, yet whose sexual organs are aroused for early activity, will arrive at the age of puberty in a rather debilitated condition. Such condition can not fail to result from their many indiscretions, perhaps first to

gratify curiosity, but later for certain sexual gratification. Then what could be expected from the offspring of such individuals as parents? For we can not expect strong and robust children from such weak and exhausted individuals. And if, as has been said, such influences continue in full sway from generation to generation, it naturally must accelerate the final annihilation of the human race. This statement may seem exaggerated, yet time will prove the correctness of my deduction.

The foregoing remarks apply with special significance to girls and maidens, whose delicate and complicated sexual apparatus requires special provision of the nervous system for the physical development, so that these organs, as well as the entire body, may be nearly fully developed before the first functional phenomena (menstruation) appears; that is, on entering real maidenhood. But we observe nowadays, contrary to the laws of nature, the appearance of that special function in girlhood (certain climatic influences of course excepted) long before their generative organs have had sufficient time for full normal development. It can readily be seen that an early appearance of such function favors an early sexual excitement, the disastrous influences of which are sure to show themselves in an early matronhood.

The remarkable increase of such occurrences can be traced especially to girls in schools of higher instruction, and, as a consequence, menstruation appears much earlier in the cities than rural districts. For these very obvious reasons we find the most irregularities in that function, as well as painful menstruation, and very often an early cessation occurs as proof that the organs were not fully developed to sustain such function to the proper period of life.

For reasons already presented, it must be apparent that forced exertion for high educational accomplishments,

regardless of a lack of special talents, must prevent full physical growth, for the simple reason that, while for naturally gifted children learning is rather an easy process, and therefore not so destructive to bodily robustness as in those possessing more limited talent, the latter class would be seriously injured if goaded on to strenuous efforts to acquire like attainments in the same time. Hence all forced education in early youth must exert, in many respects, the most damaging results to physical well-being.

In some respects, but in far less degree, many of these remarks apply also with reference to boys, and any forced education, regardless of talent, will always exert very undesirable and injurious influences.

Modern Diet and Cooking.—The skillful cook, so much admired nowadays, is considered one of the most desirable persons in the household, as well as at public places of eating. And, while the products of so-called scientific cooking may be very acceptable because it tastes good (that is, it produces a delightful sensation in the tongue and palate), and presents a pleasing appearance on the table, yet such a diet will nevertheless prove very detrimental to the stomach and to the whole system, as will be shown presently.

The great varieties of food, of very diverse constituents, forced, as a requirement of modern eating, into the stomach that neither demands nor is able to digest such mixtures, must in time exert a very detrimental influence upon the whole digestive tract, which eventually becomes unable to overcome such imprudence. Such is the result of the irrational habits of people whose principal requirement of a cook is to gratify their tastes, and to comply with the demands of society in preparing so and so many courses at a certain meal.

The stomach—a most willing but very often the most abused organ in the body—that is expected to take care

of all such varieties of rich food, no doubt makes the best efforts possible to overcome the difficulty; but it must finally surrender to a diseased condition. And as there is no country, excepting, perhaps, France, where such unhealthful cooking and indulgence in so many indigestible dishes seem to prevail as in the United States, we are called the land of dyspeptics, a distinction of which we have certainly no reason to be proud, because dyspepsia is merely a punishment for the many indiscretions at the table.

It is a positive fact that, when proper digestion does not take place, sufficient assimilation and nutrition can not be realized. While some enthusiastic, thoughtless cranks will compare a so-called model kitchen to a chemical or pharmaceutical laboratory, such comparison is a most absurd illusion.

Were the articles of our diet selected, as has been explained in Part First of this work and these articles prepared in as simple a manner as possible, making due allowance for a good taste by reasonable seasoning, dyspepsia, with its allied conditions, would soon be a thing of the past, and the victory would be achieved without the assistance of a physician; for the real causes would be removed, a thing impossible for any medium to accomplish.

But I must call attention to another important point, and that is, the prevailing and increasing defectiveness and diseased conditions of the teeth. This is an affliction of which our forefathers knew but little, and a dentist a hundred years ago was rather a curiosity.

The natural function of the teeth is simply to bite off a part of the food which is to be brought under their chewing action, in order that it may be reduced to such particles as the stomach will be able to digest. Such destined activity of the teeth can only be utilized when there is something to chew; in other words, when there is food that needs to be so reduced. But, at the present time,

many foodstuffs are so prepared that scarcely any chewing seems necessary; hence the teeth are deprived of such exercise. It is clear that if the teeth have no work to do, they are not cleaned by the roughness of the food, and the bland constituents of food must deposit on their surface certain materials which have a tendency to cause decay, attacking the natural enamel and destroying its integrity. If the teeth are badly diseased, the dentist will repair the defect in the best possible manner, either by filling cavities or by substituting artificial teeth. But either remedy is a poor substitute for natural teeth.

All this could be avoided if people would return to the old-fashioned rational mode of diet, so that in securing thorough digestion a proper assimilation would take place. By such means the whole organism would be benefited in the enjoyment of health, vigor, and physical strength, so indispensable to the personal and general welfare.

Interference with Nature's Laws.—Nature has indicated very distinctly certain real necessities, which are to some extent made known even to the lower animals through a natural instinct; but, inasmuch as man is endowed with superior mental faculties, including a free will, it is clear that special emotions of the brain may exert a powerful temptation to deviate from the laws of nature in many ways, and so to frustrate its real purposes.

It is also a fact that as civilization rises, the sensibility to rather common impression increases, and, as a consequence, artificial aid is sought to neutralize, so to speak, any wrongs against nature's laws. Therefore, owing to such tendency, there has been developed, from the remotest time to the present day, the practise of medicine in various forms, and, somewhat later, on that of surgery and obstetrics, as well as traditional home treatments for minor ailments. Also there has been cultivated the belief in supernatural healing powers, or superstition of unknown elements in curing disease and ameliorating physical suffer-

ing. While the latter was nothing else than the wholesome efforts of nature to help itself, or, as we now know, a suggestive force called upon to assist nature; therefore these two may be considered as involuntary powers, rather inseparable in their action, but may also, under certain circumstances, act as voluntary powers, or both combined, which we will see presently.

Many people habitually interfere with nature to a very deplorable degree, being quick to use, for slight constipation, strong purgatives instead of mild laxatives; for diarrhœa, astringents or constipating mixtures, instead of mild evacuants, merely to assist nature to rid itself of irritable masses in the bowels; for cough, a vast variety of cough medicines, instead of assisting nature by mild emollients to lessen the irritation of the mucous membranes and to favor the discharge of the accumulation of offending mucus (secretion); for headache, a selection of headache compounds, while attention to the free emptying of the bowels would better remove the cause, or a cold application to the head, quietude of the mind, and fresh air would be more effectual and far more rational; for a supposed malaria, at once dosing with quinine, etc., instead of finding the true cause of trouble, which is very often not malaria at all, but a certain lassitude, or depression of spirit; and so *ad infinitum*, but to continue would be simply a repetition of points previously discussed.

The quack or patent-medicine vender is quick to take advantage of such common inclination, and displays in newspapers glowing promises to relieve all possible and impossible ailments. By such means these unscrupulous fellows reap fortunes from credulous, superstitious, and oversensitive people, at the same time encouraging the pernicious habit of swallowing mixtures, the constituents of which are kept secret, lest the shameless deception be exposed.

It is quite evident that, if we interfere thoughtlessly

with nature in accidental disturbances, not being fully aware of, or competent to appreciate, the intention of nature and her mode of correction, we certainly must commit some degree of mischief, if not permanent injury, to the whole organism. A conservative physician will judge things rightly, and, in order to escape such a situation in a safe way, he will prescribe a placebo (an innocent mixture) merely to satisfy an alarmed patient.

Some people, prompted by the common aphorism, "Prevention is better than cure," make it a custom, as a supposed means of insuring good health, to take some kind of medicine every day. But such a course is a decidedly wrong application of the aphorism; and it is really astonishing to what extent a maltreated stomach will endure such abuse. But alas! it must finally surrender to such destructive and overpowering influences; digestive disorders set in, and the whole organism suffers from such thoughtless indiscretions.

So it must be apparent that the indiscriminate use of medicines, under any circumstances, should be discouraged in the strongest terms. It also remains an open question, to what extent medicinal substances in real sickness are indicated or beneficial. And I wish right here especially to emphasize that the less one indulges in medicines the better for personal safety. No one knows better than a physician how often the most intricate diseases have yielded to the salutary efforts of nature, or how often so-called "heroic" treatment, or, as the aphorism runs, "doctoring for life or death," has sacrificed the life of a patient when it should have been saved.

But what especially concerns us in this connection is, that the making of our organism a pharmaceutical laboratory, so to speak, never will preserve good health, create a robust physical organism, or insure a ripe old age; but,

through indiscretions contrary to nature's laws, just the contrary results must be expected.

CONCLUSION

In the foregoing I have dwelt on the principal causes of a slowly, but certainly advancing, tendency toward retrogressive physical development from generation to generation; and have brought the matter to the attention of the reader in order to be instrumental in pointing out the proper course to pursue in the economic relations of civilized society.

But, before closing, there remains another matter to be mentioned in this connection, namely, the great changes of industry from the primitive modest workshop to the present gigantic manufacturing plant, which has brought a great revolution in the condition of the mechanic or laborer, as far as his physical health is concerned. Young children are also pressed into the employ of plant owners to furnish cheap labor, regardless of the general consequences to the welfare of their fellow-men. So also married women, instead of attending to home affairs, are forced to seek work at such places, to compensate for the deplorable circumstances of being obliged to assist in providing for the maintenance of the family. And when we observe into what unhealthy and annoying places of employment such unfortunates are forced, often with inadequate food, it must become a real horror to well-wishing people to what extent not only such individuals, but also their future offspring, must degenerate; for it is impossible for children who pass their youth in unhealthy quarters, with physical overexertion, privation, and poverty, to properly develop either physically or mentally. And it is evident that their descendants must, as a natural consequence, be seriously affected by the bad influences of such imperfections of body and mind.

Such unnatural economic conditions must, in the very nature of things, produce a more and more enfeebled gen-

eration, with no prospect of enjoying a robust physical condition, with perfect health and the expectation of reaching good old age. Should present conditions be not thoroughly reformed—a consummation that will come in time as public enlightenment prevails—there can be no relief from final destruction of the race; in other words, social reform will be the only salvation.

AN ESSAY ON THE INCREASING OCCURRENCE OF CHILDLESSNESS

INTRODUCTION

There is perhaps granted to no other person such an extended opportunity to penetrate deeply and fully into the very intimate relations of family life as to the busy practitioner of medicine. Hence it is evident that it can be reasonably expected of him to present a truthful and satisfactory presentation of the subject, and, at the same time, to raise a warning voice in honest and candid exposure of existing evils, and in favor of a speedy return to the principles and demands of nature's laws relative to the true purpose of sexual relations.

My special study on these matters has prompted me to present to a kind and attentive reader the results of careful investigation, in the hope that it may serve to inspire people to earnestly seek a favorable reform for the benefit of the whole human race.

Let us now give paramount consideration to three special points, namely: The influence of modern culture; the increasing ambition for celibacy; and the improprieties in married life.

I. THE INFLUENCE OF MODERN CULTURE

It must be admitted that women are becoming more and more weakened physically, especially with reference to their sexual anatomy, and that such a condition does not permit of

their being able to conceive as frequently as in former times, when woman, as a rule, enjoyed a strong and robust development, and it was therefore not such a strain on the organism to become a mother. And the causes are to be found in the changes wrought by modern civilization, the rather artificial mode of living as to diet and clothing, and the want of proper provisions for the care of the body as to nature's requirements—all of which causes have been discussed in various parts of this work.

We must also, if we are candid, trace bodily shortcomings to early mental development, because of the severe strain that is unavoidable in prosecuting studies of higher education before full physical development has been attained. This is a positive fact which, it is very much to be regretted, is often not acknowledged; but time will force such important matters to general attention.

It may be argued that women of the highest literary ability have enjoyed a comparatively robust physical development, yet we must not lose sight of the fact that these women were, as a rule, endowed with unusual natural gifts and superior talents; hence their literary success has not demanded such a strain on their nervous system as otherwise would have been the case. And, moreover, but very few of such women have reared large families; nay, in most cases, they either have had no children in wedlock, or have lived in celibacy.

I feel it also my duty as a member of the profession—although I do so rather diffidently—to discuss another cause of sterility, namely, the reckless and thoughtless interference on the part of some so-styled woman specialists. It is a fact, which I have had frequent opportunity to verify, that women who, owing to their otherwise perfect state of health, would have conceived quite frequently, have had their wombs curetted or the vagina mistreated with strong applications and unnecessarily hot injections;

which have changed the normal condition to such a degree that the prospects of conception were totally destroyed.

It is, however, a blessing to womanhood that a more and more conservative spirit seems to prevail, so that women are not boldly mutilated on the operating table, as has been done so often in the past, not only by unskilled operators, but also, now and then, by more prominent specialists. We may earnestly hope that such inexcusable ambition will give way to a rational conservatism; so that the desire on the part of a woman to become a mother may not be frustrated by careless and unscientific interference with her organs of generation.

I have had personal opportunity to prove that, many times, when a proposed surgical interference was not permitted, a mild medicinal treatment has brought such a case to a very satisfactory issue.

It is a fact proven by daily observation that young men, as well as maidens, become more and more averse to entering into the matrimonial bond. And if we diligently inquire into the matter, the real causes of such a lamentable state of affairs will not be difficult to find. Of paramount consideration is the improper rearing of children. Under present conditions, rather younger, as well as older, children come unobserved into frequent contact with each other, which allows not only an undesirable intimacy, but also a premature acquaintance with the functions of the generative organs, arousing a vulgar curiosity to investigate certain special features or to experience the pleasures of such activity. Such an early desire is the most fruitful incentive to the practise of masturbation, an evil which is becoming more and more universal, and it is evident that such bad habits greatly interfere with physical and mental development and are accompanied by the most damaging consequences.

It is of no use to deny the fact that, nowadays, children at the age of ten or twelve years know more about sexual relations than was known in former times among young men and maidens; and the cause of such precocity can safely be traced, if we would be candid, to the constantly increasing early mental development of children, encouraged by the growing ambition to give to children the more extended education demanded by modern civilization. In this connection we ought to make comparison with the habits of the more primitive tribes of the human family.

II. THE INCREASING AMBITION FOR CELIBACY

It often occurs nowadays that when a young man has finally attained the period of full puberty at which to properly enter the sphere of married life, he is rather embarrassed by the problem of financial ability to provide for the ever-increasing demands of the modern home and the supposed essentials for complying with the desired station in society. As a result, he is very apt to dodge such social and economic requirements, and in case of unwillingness to deny himself the gratification of sexual activity, to resort either to masturbation, to the dishonoring of maidens, or to the haunt of the prostitute.

With reference to maidens, we face quite a different situation, on account of the increasing ambition of their sex to acquire an accomplished education, encouraged, as a rule, by an endeavor to enjoy a more independent and less arduous life, with better remuneration than is possible by manual labor. But it is self-evident that, on account of the time necessary to prosecute the necessary preparatory studies, a maiden's mental force is so profoundly engaged that physical development is forced to subordination, and any real leisure time is devoted to perfect rest. Hence the aversion to alternating mental exertion

with useful physical work necessary to a healthful state of female life increases steadily; and, as a consequence, maidens become further and further removed from their beautiful station and proper destination in life, and any ambition to reach such station is liable to utterly perish.

It is therefore not at all surprising that many young men in rather moderate circumstances will shrink from entering the marriage relation with a maiden whose previous ambition has been just the contrary to becoming a loving wife, a competent manager of a household, and a devoted mother. Hence celibacy is often preferred, through fear of being doomed to attend to such domestic affairs as naturally should fall to the wife. Such conditions favor bachelordom, as well as old maidenhood—classes certainly not greatly to be desired, and generally considered as unproductive attachments to society.

III. THE INDISCRETIONS OF MODERN MATRIMONY

The most sacred and intimate bond between two persons of opposite sexes constitutes and secures not only a well-regulated and contented family life, but also tends to perfect the destined order of things—the replacing of the individual self and providing for the increase of population. Such an ideal station in life is an unwritten, as well as a written, law ever since the existence of the human family; but the ambition of so-called civilization has often favored a certain encroachment upon nature's laws materially hindering its beneficial and necessary intention. Hence it is the solemn duty of every well-wishing member of society to present such contrasts to a model matrimonial bond in a kind but honest and truthful manner, without fear of being censured.

Amongst the rich people, however, those well-favored financially and fully able to provide for all desirable acquisitions, and for all demands of modern social life, the young people, as a rule, marry; yet the motives of such a bond are now and then rather questionable, for the reason that sexual

gratification to its fullest extent is deemed the prime object. But the sensibility of wives is so increasing that they are becoming more and more inclined to make such provisions as will enable them to escape the many inconveniences, illnesses, and other burdens that accompany pregnancy, as well as the work necessary to rear a large family of children. Hence the result is a very limited number of children, or none at all. Such perverted ambition is, it must be confessed, encouraged on the part of unscrupulous physicians, but mostly by quacks and secret abortionists, either to prevent conception or to destroy its products, for the gratification of the wishes of patrons, or for the sake of gaining a lucrative compensation.

Luckily two things may happen to frustrate such damnable purposes; for, on the one hand, an unusual strong nature may resist the means of preventing conception and demand its proper right; or, as in many very pleasing instances, preference may be given to a full natural gratification of sexual relation, the contracting parties being content with all the inevitable results.

From certain sources there are circulated advertising pamphlets having titles, "Fewer and Better Children," designed to arouse the attention of married people, and induce them to avoid a numerous offspring, in order to secure fewer but better (?) children. For such purposes clever propositions are advanced to use certain proprietary preparations. In one of such publications (Foote) it is said that even the people of wild tribes in matrimonial bond, after having bred one or two children, to avoid the crying and other annoyances of children in their camps, perform a certain rude operation on the male urethra, to prevent the impregnating fluid from entering the proper channel; whether this is true or not, I could not vouch; but the obvious purpose of the story is to justify the regulation by artificial means of the number of children desired. But the further and paramount intention is to realize large profits out of such cheap proprietaries, the ingredients of which are not revealed.

With reference to so-called middle classes, people in somewhat opulent circumstances, there is present a quite different proposition. Owing to the increased requirements for providing for a large household, according to the supposed station in life and society, people are often encouraged to interfere with the natural results of matrimony; yet it must be remembered that, as a rule, a certain sexual gratification is still demanded. But here comes into notice the advantage of possessing scientific knowledge, and the advice of friendly (?) neighbors is also utilized to secure certain means of preventing the fruits of sexual union. Yet, to the great honor of many parents, it must be emphasized that the vast majority are free from any such impure motives in their marital relations, and are fully willing to make any possible sacrifice to perform their moral duty in accepting and providing for a numerous family of children, as a natural duty of parenthood and a sacred obligation to society. Nevertheless, there is reason to fear that our artificial civilization and its often damaging influences may become really contagious; for statistics of births, especially in larger cities, show conclusively a gradual decrease in the number of children, while in rural districts, which are not as yet so much influenced by city evils, make commendable exceptions; however, if the present tendency increases, in time the country people also may come to indulge such wrong practises.

Amongst the poor, so-called "proletarians," we may boldly assert that the greatest number of children are found; and this is easy of explanation, for the reason that such classes possess a very modest and limited degree of education, and it is partly on this account that they allow the laws of nature full sway. They rest in the consolation that, in case of the utmost pressure of want, a merciful providence will provide for their children. As a rule this exception is met on the part of wealthy people and public institutions of charity, with very commendable generosity. Such liberality is, perhaps, prompted somewhat by the consideration that such children,

when grown, will constitute an indispensable acquisition to the population, because of their willingness to perform such manual labor as can not at present be done by machinery. It is a fact that, in the degree that these people become educated, they become averse to the performance of menial work. But the poorer classes of people have drawbacks of their own, the most obvious being their inability to own homes, and hence must live in rented houses. Now, it is well known that landlords, as a rule, do not wish tenants with large families of small children; so such families are often forced to accept rather undesirable quarters, such as would flatly be refused by others. And such a sad state of affairs, it may be justly feared, will in time, as a measure of necessity, arouse these people also to efforts to prevent a numerous family of children, and to practise, to some extent at least, sexual continence, following the methods of other classes, though at first merely because of forced circumstances.

It must not be supposed that I have aimed to magnify existing ambitions and evils; and while such methods may be practised by only a small minority of the population, yet it is to be hoped that this minority will grow less rather than to increase, which would finally have the effect, so pointedly expressed by President Roosevelt, of the nation's committing "race suicide."

ESSAY ON PRINCIPLES OF SEXUAL PHYSIOLOGY

I. GENERAL REMARKS

It may perhaps be assumed that at all times nature takes its own course; and if men were content with such a fact, no efforts at all would be made to read nature correctly. But it is the ambition of man to penetrate its secret chambers, and to unveil its seemingly mysterious evolutions, in order to explain its powers and peculiarities.

The purpose of the present essay is to consider the propagation of the human species, as well as nature's laws con-

cerning the begetting of descendants and the special sex of the offspring.

That human beings are in many respects different from the lower animals is especially proven in the sexual relations of mankind. A matrimonial bond confines two persons of opposite sex to a rather isolated station in life; and, owing to such provisions, sexual desires of one or the other, or both, as the case may be, may be gratified outside a physiological period, especially provided for rendering conception the most probable and certain. But at such special period there must be a certain harmonious action of seminal elements, either a voluntary or involuntary impulse of both parties, to insure such fruits of the union as nature requires.

But we must not lose sight of the fact that there must be a negative and a positive force to develop the full co-operative activity; but, unlike electricity, which is dependent upon a strictly physical law, animal life, although dependent on the same law to some extent, is affected by many other special influences, the free and independent will power of the human subject often predominating.

II. PECULIARITIES OF SEXES

The begetting of preferred special sex in offspring is not caused by any accidental occurrence; there are predominating factors subservient to the laws of nature that decide a certain result in sexual union. But the necessity of producing logical evidence of the correctness of certain principles pertaining to such a delicate subject has perhaps prevented a rational and convincing exposition; and, more than that, it requires years of careful study, observation, and personal experience to unfold the mysteries of conception.

While individual conviction in such a matter may have a certain positive value, yet it can not be considered conclusive, as it needs confirmation of other experienced parties to set aside any doubt of possible errors. But to secure such a candid confirmation has been found a very difficult task,

for the reason that, as a rule, females especially are not disposed to express their sexual emotions to a second, and much less to a third, person; therefore it requires a great deal of tact and discretion on the part of the inquirer to overcome the doubt of an intention to gratify mere vulgar curiosity, and to elicit such information as will prove or disprove personal theories and experiences. My efforts for years past have at last succeeded in corroborating the truth of my theories concerning the laws of nature.

III. SPECIAL POINTS OF INTEREST

As will be seen, there exists in both sexes a certain electrifying orgasm (sexual exaltation), which, by a coincident deliberation, assures impregnation, as well as special sex in offspring. But it is another intrinsic peculiarity that the highest development and primarily deliberated exaltation (orgasm) will beget the opposite sex; or, in other words, such high activity in the male will result in a female child; and such on the part of the female, in a male child. As a proof of such a fact, we can usually observe a striking resemblance of facial features between mother and son and father and daughter.

Now, we should not lose sight of the fact that the female must be considered as the rather negative, or conceiving factor in the act; hence it is clear that there must be a provision of nature by which a certain height of sexual excitement takes place in the female, not only to render fæcundation of the ovums more probable, but also to influence such orgasmic activity to determine upon the special sex in the offspring.

If it were not for such a provision, the result would be rather disastrous to the human race in begetting but one special sex, which would be all girls, and which would in time result in the extinguishing of the race.

But as a rule, a recurring monthly period of special sexual congestion and activity is destined not only to relieve such a congested state of the female sexual organs (especially the

ovaries), but also to secure the possibility of conception, as well as the begetting of special sexes in the offspring in almost the same proportion. And so it occurs that when at a union the highest activity in the female is aroused and primarily concluded, the result is, with all possible certainty, a male child; in other words, the opposite sex. And, *vice versa*, if the primary conclusion and highest activity be in the male, a female child will be the result.

It should be stated that in the natural course, as a rule, the first union after menstruation, everything else being equal, will result in a female child. But should there be no conception at that time, the succeeding fruitful intercourse will be a male child, which we will presently see. But under certain circumstances, which it is not prudent nor practicable here to describe in minute detail, the contrary may also occur.

Now it is possible, by self-control and presence of mind on the part of the male, and by a certain prolongation of the act, to arouse the passiveness of the female to such a high degree of orgasmic activity that it will be concluded primarily, and, the positive factor of the male following instantly, a male child may be assured.

IV. CO-INCIDENT FACTORS

When we speak of superiorities as well as inferiorities in children, we rarely inquire into the probable causes of such conditions. Yet there is no doubt that certain powerful factors were called into special activity on the part of parents to transmit such impressions of elevated emotion or low animal lust to offspring from such a union, so that either talented or less gifted, sympathetic or brutal, highly intelligent or idiotic, pretty or ugly, perfect or imperfect children will be begotten under certain circumstances.

Yet man, in the possession of thinking, reasoning self-control and free will, should consider it a duty to himself and to his descendants, as well as to society, to strive by a strong will and kind affection to secure the best possible results in the fruits of their union.

But it is a fact that a brutal man or a drunkard, if the copulating female possesses the momentous requirements of impregnation, and yields to his passion, with even a sense of disgust and aversion, and probably under a feeling of anxiety for the security of her life, will beget an inferior child. It could not be expected otherwise than that such emotions and mental excitement would be transmitted to the child, which, by the way, will usually be a female, and that it would inherit a low, or even brutal disposition; while if, as rather an exception, it should be a male child, it will inherit a cowardly and fretful disposition.

On the other hand, the respect and admiration of the female for the superior virtues, talents, and attainments of the male will, as a rule, result in the transmission of all such excellent gifts to the male child, and, *vice versa*, from the male to the female child. And if, in the splendor of admiration towards each other, conception takes place, such superior emotions and gifts will be inherited by the offspring, regardless of special sex.

Now it is possible to make such rational preparation before contemplated union at a time when conception is the most probable, as has been explained, which may be up to four days after cessation of menstruation, as will enhance the probability of transmitting superior mental attainments, as well as bodily perfection and facial beauty, in offspring. Such intelligent conversation as will inspire exalted thoughts, for instance the admiration of beauty, mutual enjoyment of reading and discussing classical or other scientific works, or the contemplation of paintings, sculptures, and other works of high art, will prove very influential in the production of healthful and intellectual offspring. If in such an elevated and happy emotion a fruitful union takes place, all such impression will be inherited by the child from its very conception. So it occurs that rather less gifted parents, or such as possess even rather uncomely physiognomies, can and do beget chil-

dren endowed with the most desirable qualities of mind and soul, as well as harmonious bodily development and facial beauty.

It is quite certain that such happy coincidences have given the world our gifted poets, philosophers, statesmen, artists, sculptors, scientists, and military geniuses, as well as unusually pure and kind-hearted philanthropic men and women.

V. STERILITY

This subject has ever aroused the greatest interest, and is supposed by many to be a mystery, unapproachable by a rational solution, and it has also been a field prolific of theoretical speculations and illusory conclusions.

In entering upon the discussion of such a subject, I do so for the reason that it seems to be a fitting finale to the discussion of sexual physiology. My exposition is based on many years of practical observation and study, and, while I do not claim that my conclusions are infallible, yet they are presented without fear of severe criticism or successful contradiction.

It must be pre-supposed that the organs of generation in both sexes are in perfect normal condition, which would admit of the possibility of impregnation, and yet the woman remains sterile. Such occurrences must be traced first to the absence of or imperfect *functional activity*, for most in the female, owing to the want of a certain harmony between participants and lack coincident deliberation of seminal elements, as we have explained before.

While it is true that in most instances the female may be found to be the most defective, yet the male can not be excepted; for it has often occurred that a childless matrimonial bond has become fruitful in a second marriage by either husband or wife, proving to a certainty that in the first marriage the necessary harmony of organs had been wanting, and so made conception impossible.

Such physiological defects are the most frequent causes

of sterility. And if this essay on sexual physiology be carefully and thoroughly studied, and these principal causes removed, most cases of sterility will be eliminated.

It is, for obvious reasons, not prudent at this time to present more minutely explicit or probably plainer and more satisfactory explanation of instruction for special cases; because each case has peculiarities of its own, which have to be carefully inquired into by a competent person before a rational course can be instituted. The kind reader must therefore be content with the points presented, and consider all requirements in his particular case in harmony with the evidence presented in this essay.

Should, however, the exposition of this subject be not fully comprehended by one or other reader, a physician who entertains the same principles and opinions as the author may be consulted, and all particulars can safely be transmitted to him, in perfect confidence of receiving proper advice.

The correction of actually diseased conditions or faulty secretions must be treated by a competent gynæcologist if possible.

NOTE.—If it should be preferred to consult the author for an investigation of a special case, very plain explanations on this subject, as well as minute instructions, may be obtained by personal office appointment; or, if such is not available, through confidential correspondence.

INDEX

Absynth	88	Cocaine	88
Addenda	179	Coffee	44
Alcoholic stimulants	87	Colic	134
Allopathy	111	Common forms of disease...	125
Antitoxin fraud	155	Constipation	128
Appendicitis	139	Consumption	159
Assistance to nature	111	Convalescents, rules for	176
Asthma	143	Corns	48
Auxiliaries of hygiene.....	58	Cough	133
Bacilli	94	Croup	157
Bacteria	94	Diarrhœa	130
Baldness	49	Diarrhœa of infants	19
Bathing	59	Diet and digestion	34
Beer	88	Diphtheria	154
Boards of health	66	Disinfectants	69
Bread	40	Diversion from rules of hygiene	73
Breakfast mush	40	Dyspepsia	136
Burns and scalds	144	Eclecticism	112
Caffein	88	Education, influence of on health and physical de- velopment	28
Canabis indica	88	Environments	55
Care of sick	172	Ether	88
Care of sick and conva- lescents	101	Erysipelas	158
Catarrh	142	Excesses	90
Causes of disease	71	Flux	131
Child labor	52	Fissure of anus	129
Chloral	88	Fistula of anus	129
Chloroform	88	Fruits	41
Cholera infantum	132	Grip	170
Cholera morbus	135	Grippe	170
Childlessness, increasing oc- currence of	207	Headache	135
Cider	88	Homeopathy	112
Clothing	46	Hook-worm	93
Climate	55		

- Hydropathy113
 Hygiene, auxiliaries of..... 58
 Hypnotism120
 Imagination75, 115
 Influence of civilization 85
 Influence of Education on
 physical development ... 28
 Influence of locality 83
 Indigestion136
 Injections 58
 La Grippe170
 Loss of appetite127
 Malaria148
 Massage 60
 Matrimony 32
 Meat 41
 Measles153
 Medical quack and pretender.191
 Medication114
 Medicine vender193
 Micro-organism 94
 Microbes 94
 Milk 39
 Morphine 88
 Mosquitoes 91
 Nature's cure106
 Obstetrician187
 Occupation 50
 Old age177
 Opium 88
 Files128
 Physical culture 25
 Poison vine eruption144
 Premature mental develop-
 ment198
 Pretender191
 Physician179
 Physical degeneration of the
 human race195
 Public supervision of health. 66
 Pulmonary tuberculosis, ac-
 quirement of.....168
 Quack and pretender191
 Rearing of children 17
 Recreation 50
 Rheumatism140
 Salt 43
 School hygiene 22
 Scarlet fever153
 Sensibility 75
 Sexual physiology, principles
 of214
 Sick, care of174
 Smallpox158
 Spices 42
 Suggestion117
 Summer complaint of chil-
 dren132
 Superstition116
 Supposed causes of disease.. 91
 Surgeon183
 Specialist190
 Specific diseases148
 Sterility219
 Tapeworm145
 Tea 45
 Tobacco 89
 Tuberculosis159
 Typhoid fever159
 Vaccination 61
 Vegetables 42
 Vinegar 42
 Water 43
 Whisky 87
 Wine 88
 Whooping-cough157

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